



Abilian Core Documentation

Release 0.1

2015-08-07

Contents

I	Contents	3
1	About Abilian Core	5
1.1	Goals & principles	5
1.2	Features	5
1.3	Current status	7
1.4	Roadmap & getting involved	7
1.5	Licence	7
1.6	Credits	7
2	Installing Abilian Core	9
2.1	Testing	10
3	Contributing to Abilian Core	11
3.1	Project on GitHub	11
3.2	License and copyright	11
3.3	Build Status	11
3.4	Releasing	12
4	Coding standard	13
4.1	Additional rules	13
4.2	Notes	13
5	API	15
5.1	Package abilian	15
5.2	Package abilian.plugin	21
5.3	Package abilian.core	21
5.4	Package abilian.services	36
5.5	Package abilian.web	43
5.6	Package abilian.testing	58
6	Changelog for Abilian Core	63
6.1	0.4.5 (unreleased)	63

6.2	0.4.4 (2015-08-07)	63
6.3	0.4.3 (2015-07-29)	63
6.4	0.4.2 (2015-07-29)	64
6.5	0.4.1 (2015-07-21)	64
6.6	0.4.0 (2015-07-15)	64
6.7	0.3.6 (2015-05-27)	64
6.8	0.3.5 (2015-05-27)	65
6.9	Updates	65
6.10	0.3.4 (2015-04-14)	65
6.11	0.3.3 (2015-03-31)	65
6.12	0.3.2 (2014-12-23)	66
6.13	0.3.1 (2014-12-23)	66
6.14	0.3.0 (2014-12-23)	66
6.15	0.2.0 (2014-08-07)	66
6.16	0.1.4 (2014-03-27)	67
6.17	0.1.3 (2014-02-03)	67
6.18	0.1.2 (2014-01-11)	67
6.19	0.1.1 (2013-12-26)	67
6.20	0.1 (2013-12-13)	68
7	Credits	69
7.1	Design, programming	69
7.2	Art (images, icons)	69
II	Indices and tables	71



Welcome to Abilian Core's documentation.

Abilian Core is an enterprise application development platform based on the [Flask micro-framework](#), the [SQLAlchemy ORM](#), good intentions and best practices (for some value of "best").

The full documentation is available on <http://docs.abilian.com/>.

It builds on powerful and well documented Python libraries, mainly:

- [Flask](#)
- [SQLAlchemy](#)
- [WTForms](#)

This documentation will assume that a developer already has some knowledge of these libraries.

Part I
CONTENTS

About Abilian Core

Abilian Core is an enterprise application development platform based on the [Flask micro-framework](#), the [SQLAlchemy ORM](#), good intentions and best practices (for some value of “best”).

The full documentation is available on <http://docs.abilian.com/>.

1.1 Goals & principles

- Development must be easy and fun (some some definition of “easy” and “fun”, of course)
- The less code (and configuration) we write, the better
- Leverage existing reputable open source libraries and frameworks, such as SQLAlchemy and Flask
- It must lower errors, bugs, project’s time to deliver. It’s intended to be a rapid application development tool
- It must promote best practices in software development, specially Test-Driven Development (as advocated by the [GOOS book](#))

1.2 Features

Here’s a short list of features that you may find appealing in Abilian:

1.2.1 Infrastructure

- Plugin framework
- Asynchronous tasks (using [Celery](#))

- Security model and service

1.2.2 Domain model and services

- Domain object model, based on SQLAlchemy
- Audit

1.2.3 Content management and services

- Indexing service
- Document preview and transformation

1.2.4 Social

- Users, groups and social graph (followers)
- Activity streams

1.2.5 User Interface and API

- Forms (based on [WTForms](#))
- CRUD (Create, Retrieve, Edit/Update, Remove) interface from domain models
- Labels and descriptions for each field
- Various web utilities: view decorators, class-based views, Jinja2 filters, etc.
- A default UI based on [Bootstrap 3](#) and several carefully selected jQuery plugins such as [Select2](#)
- REST and AJAX API helpers
- i18n: support for multi-language via Babel, with multiple translation dictionaries

1.2.6 Management and admin

- Initial settings wizard
- Admin and user settings framework
- System monitoring (using [Sentry](#))

1.3 Current status

Abilian Core is currently alpha (or even pre-alpha) software, in terms of API stability. It is currently used in several applications that have been developed by [Abilian](#) over the last two years:

- Abilian SBE (Social Business Engine) - an enterprise 2.0 (social collaboration) platform
- Abilian EMS (Event Management System)
- Abilian CRM (Customer / Contact / Community Relationship Management System)
- Abilian Le MOOC - a MOOC prototype
- Abilian CMS - a Web CMS

In other words, Abilian Core is the foundation for a small, but growing, family of business-critical applications that our customers intend us to support in the coming years.

So while Abilian Core APIs, object model and even architecture, may (and most probably will) change due to various refactorings that are expected as we can't be expected to ship perfect software on the first release, we also intend to treat it as a valuable business asset and keep maintaining and improving it in the foreseeable future.

1.4 Roadmap & getting involved

We have a [roadmap on Pivotal Tracker](#) that we use internally to manage our iterative delivery process.

For features and bug requests (or is it the other way around?), we recommend that you use the [GitHub issue tracker](#).

1.5 Licence

Abilian Core is licensed under the LGPL.

1.6 Credits

Abilian Core has been created by the development team at Abilian (currently: Stéphane and Bertrand), with financial support from our wonderful customers, and R&D fundings from the French Government, the Paris Region and the European Union.

We are also specially grateful to:

- [Armin Ronacher](#) for his work on Flask.
- [Michael Bayer](#) for his work on SQLAlchemy.
- Everyone who has been involved with and produced open source software for the Flask ecosystem (Kiran Jonnalagadda and the [HasGeek](#) team, Max Countryman, Matt Wright, Matt Good, Thomas Johansson, James Crasta, and probably many others).
- The creators of Django, Pylons, TurboGears, Pyramid and Zope, for even more inspiration.
- The whole Python community.

Installing Abilian Core

If you are a Python web developer (which is the primary target for this project), you probably already know about:

- Python 2.7
- Virtualenv
- Pip

So, after you have created and activated a virtualenv for the project, just run:

```
pip install -r requirements.txt
```

To use some features of the library, namely document and images transformation, you will need to install the additional native packages, using our operating system's package management tools (dpkg, yum, brew...):

- A few image manipulation libraries (libpng, libjpeg)
- The poppler-utils, unoconv, LibreOffice, ImageMagick utilities
- [lesscss](#):

For Debian/Ubuntu the package is named *node-less*. If your distribution's package is too old, you may install [node-js](#) ≥ 0.10 and [npm](#). Lesscss can then be installed with:

```
$ sudo npm install -g less
npm http GET https://registry.npmjs.org/less
npm http 200 https://registry.npmjs.org/less
...
$ which lessc
/usr/bin/lessc
```

2.1 Testing

Abilian Core come with a full unit and integration testing suite. You can run it with `make test` (once your `virtualenv` has been activated).

Alternatively, you can use `tox` to run the full test suite in an isolated environment.

Contributing to Abilian Core

3.1 Project on GitHub

The project is hosted on GitHub at: <https://github.com/abilian/abilian-core>.

Participation in the development of Abilian is welcome and encouraged, through the various mechanisms provided by GitHub:

- [Bug reports and feature requests](#).
- [Forks and pull requests](#).

3.2 License and copyright

The Abilian code is copyrighted by Abilian SAS, a french company.

It is licenced under the LGPL (Lesser General Public License), which means you can reuse the product as a library

If you contribute to Abilian, we ask you to transfer your rights to your contribution to us.

In case you have questions, you're welcome to contact us.

3.3 Build Status

We give a great deal of care to the quality of our software, and try to use all the tools that are at our disposal to make it rock-solid.

This includes:

- Having an exhaustive test suite.
- Using continuous integration (CI) servers to run the test suite on every commit.

- Running tests.
- Using our products daily.

You can check the build status:

- [Our own Jenkins server](#)
- [On drone.io](#)
- [On Travis CI](#)

You can also check the coverage reports:

- [On coveralls.io](#)

3.4 Releasing

We're now using *setuptools_scm* to manage version numbers.

It comes with some conventions on its own when it comes to releasing.

Here's what you should do to make a new release on PyPI:

1. Check that the `CHANGES.rst` file is correct.
2. Commit.
3. Tag (ex: `git tag 0.3.0`), using numbers that are consistent with semantic versioning.
4. Run `python setup.py sdist upload`.

Coding standard

We recommend using the PEP8 and Google coding standard, with the following exceptions:

- Indentation should be 2 chars, not 4.

4.1 Additional rules

TODO

4.2 Notes

4.2.1 Line length

We stick to the “no lines longer than 80 characters” rule despite the fact that we’re living in a post VT-220 world.

Here’s [some rationale](#) by user “badsector” on Reddit:

I used to use a 120 character limit or ignore E501 on my pep8 checker (python), but eventually went back to the default 80 character limit. I realized it did more for me than let me fit 4 files side by side on a laptop screen:

- It discouraged me from writing long sprawling if statements and method chains.
- With less space, I thought more assigning about clear and concise names for things.
- I would break out deeply nested ifs and other control statements into separate functions. This is probably the biggest win since smaller code pieces are easier to unit test due to lowered cyclomatic complexity.

5.1 Package abilian

5.1.1 Module abilian.app

Base Flask application class, used by tests or to be extended in real applications.

class Application(*name=None, config=None, *args, **kwargs*)

Base application class. Extend it in your own app.

celery_app_cls

celery app class

alias of FlaskCelery

add_access_controller(*name, func, endpoint=False*)

Add an access controller.

If *name* is None it is added at application level, else if is considered as a blueprint name. If *endpoint* is True then it is considered as an endpoint.

add_static_url(*url_path, directory, endpoint=None, roles=None*)

Adds a new url rule for static files.

Parameters

- **endpoint** – flask endpoint name for this url rule.
- **url** – subpath from application static url path. No heading or trailing slash.
- **directory** – directory to serve content from.

Example:

```
app.add_static_url('myplugin',  
                  '/path/to/myplugin/resources',  
                  endpoint='myplugin_static')
```

With default setup it will serve content from directory `/path/to/myplugin/resources` from url `http://.../static/myplugin`

add_url_rule(*rule*, *endpoint=None*, *view_func=None*, ***options*)

See `Flask.add_url_rule()`.

If *roles* parameter is present, it must be a `abilian.service.security.models.Role` instance, or a list of `Role` instances.

check_instance_folder(*create=False*)

Verifies instance folder exists, is a directory, and has necessary permissions.

:param: *create*: if `True`, creates directory hierarchy

Raises `OSError` with relevant `errno`

create_db()

create_jinja_environment()

handle_exception(*e*)

handle_http_error(*code*, *error*)

Helper that renders `error{code}.html`.

Convenient way to use it:

```
from functools import partial
handler = partial(app.handle_http_error, code)
app.errorhandler(code)(handler)
```

handle_user_exception(*e*)

init_breadcrumbs()

Inserts the first element in breadcrumbs.

This happens during `request_started` event, which is triggered before any `url_value_preprocessor` and `before_request` handlers.

init_debug_toolbar()

init_extensions()

Initializes flask extensions, helpers and services.

init_sentry()

Installs Sentry handler if config defines 'SENTRY_DSN'.

install_default_handler(*http_error_code*)

Installs a default error handler for `http_error_code`.

The default error handler renders a template named `error404.html` for `http_error_code` 404.

log_exception(*exc_info*)

Log exception only if sentry is not installed (this avoids getting error twice in sentry).

make_config(*instance_relative=False*)

maybe_register_setup_wizard()

register_asset(*type_*, **assets*)

Registers webassets bundle to be served on all pages.

Parameters

- **type** – “css”, “js-top” or “js”.
- ***asset** – a path to file, a `webassets.Bundle` instance or a callable that returns a `webassets.Bundle` instance.

Raises `KeyError` if *type_* is not supported.

register_i18n_js(**paths*)

register templates path translations files, like `select2/select2_locale_{lang}.js`.

Only existing files are registered.

register_jinja_loaders(**loaders*)

Registers one or many `jinja2.Loader` instances for templates lookup.

During application initialization plugins can register a loader so that their templates are available to jinja2 renderer.

Order of registration matters: last registered is first looked up (after standard Flask lookup in app template folder). This allows a plugin to override templates provided by others, or by base application. The application can override any template from any plugins from its template folder (See `Flask.Application.template_folder`).

Raise `ValueError` if a template has already been rendered

register_plugins()

Loads plugins listed in config variable ‘PLUGINS’.

setup_logging()

APP_PLUGINS = (‘abilian.web.search’, ‘abilian.web.tags’, ‘abilian.web.comments’, ‘abilian.web

Custom apps may want to always load some plugins: list them here.

CONFIG_ENVVAR = ‘ABILIAN_CONFIG’

Environment variable used to locate a config file to load last (after instance config file). Use this if you want to override some settings on a configured instance.

configured

True if application has a config file and can be considered configured for site.

db

default_config = ImmutableDict({'JSON_AS_ASCII': True, 'SENTRY_JS_PLUGINS': (‘con

default_view = None

instance of `web.views.registry.Registry`.

jinja_loader

Searches templates in custom app templates dir (default flask behaviour), fallback on abilian templates.

jinja_options

js_api = None

json serializable dict to land in Javascript under Abilian.api

redis

script_manager = '.commands.manager'

flask.ext.script.Manager instance for shell commands of this app. defaults to *.commands.manager*, relative to app name.

class ServiceManager

Mixin that provides lifecycle (register/start/stop) support for services.

start_services()

stop_services()

create_app(config=None)

5.1.2 Module abilian.i18n

I18n.

To mark strings for translation:

```
from abilian.i18n import _
_(u'message to translate')
```

Use `_` for gettext, `_l` for lazy_gettext, `_n` for ngettext.

Babel extension support multiple translation paths. This allows to add more catalogs to search for translations, in LIFO order. This feature can be used to override some translations in a custom application, by providing a catalog with messages to override:

```
current_app.extensions['babel'].add_translations('abilian.core')
```

See `add_translations`.

To extract messages to build the message catalog template (.pot), use the following “-k” parameters:

```
$ pybabel extract -F babel.cfg -k "_n:1,2" -k "_l" -o "msg.pot" "src"
```

This can be made easier by placing in *setup.cfg*:

```
[extract_messages]
mapping_file = babel.cfg
keywords = _n:1,2 _l
output-file = msg.pot
input-dirs = src
```

And just type:

```
$ python setup.py extract_messages
```

_ = <function gettext>

Translates a string with the current locale and passes in the given keyword arguments as mapping to a string formatting string.

```
gettext(u'Hello World!')
gettext(u'Hello %(name)s!', name='World')
```

_l = <function lazy_gettext>

Like `gettext()` but the string returned is lazy which means it will be translated when it is used as an actual string.

Example:

```
hello = lazy_gettext(u'Hello World')

@app.route('/')
def index():
    return unicode(hello)
```

_n = <function ngettext>

Translates a string with the current locale and passes in the given keyword arguments as mapping to a string formatting string. The *num* parameter is used to dispatch between singular and various plural forms of the message. It is available in the format string as `%(num)d` or `%(num)s`. The source language should be English or a similar language which only has one plural form.

```
ngettext(u'%(num)d Apple', u'%(num)d Apples', num=len(apples))
```

class Babel(*args, **kwargs)

Bases: `flask_babel.Babel`

Allow to load translations from other modules

add_translations(*module_name*, *translations_dir*='translations', *do-main*='messages')

Adds translations from external module. For example:

```
babel.add_translations('abilian.core')
```

Will add translations files from *abilian.core* module.

babel = <abilian.i18n.Babel object>

importable instance of Babel

gettext(string, **variables)

Translates a string with the current locale and passes in the given keyword arguments as mapping to a string formatting string.

```
gettext(u'Hello World!')
gettext(u'Hello %(name)s!', name='World')
```

lazy_gettext(*string*, ***variables*)

Like `gettext()` but the string returned is lazy which means it will be translated when it is used as an actual string.

Example:

```
hello = lazy_gettext(u'Hello World')

@app.route('/')
def index():
    return unicode(hello)
```

localeselector()

Default locale selector used in abilian applications

ngettext(*singular*, *plural*, *num*, ***variables*)

Translates a string with the current locale and passes in the given keyword arguments as mapping to a string formatting string. The *num* parameter is used to dispatch between singular and various plural forms of the message. It is available in the format string as `%(num)d` or `%(num)s`. The source language should be English or a similar language which only has one plural form.

```
ngettext(u'%(num)d Apple', u'%(num)d Apples', num=len(apples))
```

set_locale(**args*, ***kws*)

Change current locale.

Can be used as a context manager to temporary change locale:

```
with set_locale('fr') as fr_locale:
    ...
```

Parameters **locale** (`babel.core.Locale` or *str*) – locale to use. If it's a string it must be a valid locale specification

Return type `babel.core.Locale`

Returns locale set

timezoneselector()

Default timezone selector used in abilian applications

render_template_i18n(*template_name_or_list*, ***context*)

Try to build an ordered list of template to satisfy the current locale

babel = `<abilian.i18n.Babel object>`

importable instance of Babel

VALID_LANGUAGES_CODE = `frozenset(['gv', 'gu', 'gd', 'ga', 'gl', 'lg', 'tn', 'ln', 'lo', 'tr', 'ts', 'lv', 'to', 'lt', ...])`
accepted languages codes

5.2 Package `abilian.plugin`

Starting work on a plugin system. This will probably be refactored heavily in the future.

5.3 Package `abilian.core`

5.3.1 Module `abilian.core.commands`

Abilian script commands to be used in a project. See [Flask-Script documentation](#) for full documentation.

Here is how a `manage.py` can include these commands:

```
from flask.ext.script import Manager
from abilian.commands import setup_abilian_commands

my_manager = Manager(app)
setup_abilian_commands(my_manager)
```

You can also include abilian commands as sub commands:

```
from abilian.commands import manager as abilian_manager
my_manager.add_command('abilian', abilian_manager)
```

Extensions can add their own commands to manager:

```
from flask.ext.script import Manager
from abilian.commands import manager

@manager.command
def hello():
    print u"hello"

# or install subcommands
sub_manager = Manager(usage='Little extension')
abilian_manager.add_command('special_commands', sub_manager)
```

`setup_abilian_commands(manager)`
Register abilian commands on manager.

Parameters `manager` – flask.ext.script.Manager instance to add commands onto

Usage exemple:

```
from flask.ext.script import Manager
from abilian.commands import setup_abilian_commands
```

```
my_manager = Manager(app)
setup_abilian_commands(my_manager)
```

5.3.2 Module `abilian.core.entities`

Base class for entities, objects that are managed by the Abilian framework (unlike SQLAlchemy models which are considered lower-level).

class Entity(*args, **kwargs)

Bases: `abilian.core.models.base.Indexable`, `abilian.core.models.BaseMixin`, `flask_sqlalchemy.Model`

Base class for Abilian entities.

From SQLAlchemy POV Entities use [Joined-Table inheritance](#), thus entities subclasses cannot use inheritance themselves (as of 2013 SQLAlchemy does not support multi-level inheritance)

The metaclass automatically sets up polymorphic inheritance parameters by inserting a mixin class in parent classes. If you need to pass additional parameters to `__mapper_args__`, do it as follow:

```
class MyContent(Entity):

    @sqlalchemy.ext.declarative.declared_attr
    def __mapper_args__(cls):
        # super(Mycontent, cls).__mapper_args__ would be prettier, but
        # `MyContent` is not defined at this stage.
        args = Entity.__dict__['__mapper_args__'].fget(cls)
        args['order_by'] = cls.created_at # for example
        return args
```

__metaclass__

alias of EntityMeta

query_class

alias of EntityQuery

__init__(*args, **kwargs)

display_value(*field_name*, *value*=<object object>)

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

SLUG_SEPARATOR = u'-'

__auditable__ = frozenset([])

__default_permissions__ = frozenset([])

Permission to roles mapping to set at object creation time.

Default permissions can be declared as a `dict` on classes, the final data-structure will be changed by metaclass to a `frozenset` of `dict.items()`. This is made to guarantee the immutability of definition on parent classes.

Example definition:

```
__default_permissions__ = {
    READ: {Owner, Authenticated},
    WRITE: {Owner},
}
```

To alter inherited default permissions:

```
class Child(Parent):
    __default_permissions__ = dp = dict(ParentClass.__default_permissions__)
    dp[READ] = dp[READ] - {Authenticated} + {Anonymous}
    del dp
```

__editable__ = frozenset([])

__indexable__ = False

__indexation_args__ = {'index_to': (('object_key', (('object_key', ID(format=Existence(boos

__mapper__ = <Mapper at 0x7fb5701f9e10; Entity>

__mapper_args__ = {'polymorphic_on': '_entity_type'}

__module__ = 'abilian.core.entities'

__searchable__ = frozenset([])

__table__ = Table('entity', MetaData(bind=None), Column('id', Integer(), table=<entity>, p

auto_slug

This property is used to auto-generate a slug from the name attribute. It can be customized by subclasses.

created_at

creator

creator_id

deleted_at

entity_class

entity_type = None

id

meta

A dictionary of simple values (JSON-serializable) to conveniently annotate the entity.

It is recommended to keep it lightweight and not store large objects in it.

name

The name is a string that is shown to the user; it could be a title for document, a folder name, etc.

object_type

owner

owner_id

slug

The slug attribute may be used in URLs to reference the entity, but uniqueness is not enforced, even within same entity type. For example if an entity class represent folders, one could want uniqueness only within same parent folder.

If slug is empty at first creation, its is derived from the name. When name changes the slug is not updated. If name is also empty, the slug will be the friendly entity_type with concatenated with entity's id.

updated_at

exception ValidationError

class Entity(*args, **kwargs)

Base class for Abilian entities.

From SQLAlchemy POV Entities use [Joined-Table inheritance](#), thus entities subclasses cannot use inheritance themselves (as of 2013 SQLAlchemy does not support multi-level inheritance)

The metaclass automatically sets up polymorphic inheritance parameters by inserting a mixin class in parent classes. If you need to pass additional parameters to `__mapper_args__`, do it as follow:

```
class MyContent(Entity):

    @sqlalchemy.ext.declarative.declared_attr
    def __mapper_args__(cls):
        # super(Mycontent, cls).__mapper_args__ would be prettier, but
        # `MyContent` is not defined at this stage.
        args = Entity.__dict__['__mapper_args__'].fget(cls)
        args['order_by'] = cls.created_at # for example
        return args
```

query_class

alias of EntityQuery

display_value(field_name, value=<object object>)

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is “translated” to a human-readable value. This is useful for obtaining a human readable label from a raw value

SLUG_SEPARATOR = u'-'

auto_slug

This property is used to auto-generate a slug from the name attribute. It can be customized by subclasses.

created_at

creator

creator_id

deleted_at

entity_class

entity_type = None

id

meta

A dictionary of simple values (JSON-serializable) to conveniently annotate the entity.

It is recommended to keep it lightweight and not store large objects in it.

name

The name is a string that is shown to the user; it could be a title for document, a folder name, etc.

object_type

owner

owner_id

slug

The slug attribute may be used in URLs to reference the entity, but uniqueness is not enforced, even within same entity type. For example if an entity class represent folders, one could want uniqueness only within same parent folder.

If slug is empty at first creation, its is derived from the name. When name changes the slug is not updated. If name is also empty, the slug will be the friendly entity_type with concatenated with entity's id.

updated_at

all_entity_classes

Returns the list of all concrete persistent classes that are subclasses of Entity.

5.3.3 Module `abilian.core.extensions`

Create all standard extensions.

`get_extension(name)`

Get the named extension from the current app, returning None if not found.

5.3.4 Module `abilian.core.logging`

Special loggers

Changing `patch_logger` logging level must be done very early, because it may emit logging during imports. Ideally, it's should be the very first action in your entry point before anything has been imported:

```
import logging
logging.getLogger('PATCH').setLevel(logging.INFO)
```

`patch_logger = <abilian.core.logging.PatchLoggerAdapter object>`
logger for monkey patches. use like this:
`patch_logger.info(<func>'patched_func')`

5.3.5 Module `abilian.core.signals`

All signals used by Abilian Core.

Signals are the main tools used for decoupling applications components by sending notifications. In short, signals allow certain senders to notify subscribers that something happened.

Cf. <http://flask.pocoo.org/docs/signals/> for detailed documentation.

The main signal is currently activity.

`activity = <blinker.base.NamedSignal object at 0x7fb570a7fa10; 'activity'>`

This signal is used by the activity streams service and its clients.

`components_registered = <blinker.base.NamedSignal object at 0x7fb570a7f990; 'app:components'>`

Triggered at application initialization when all extensions and plugins have been loaded

`register_js_api = <blinker.base.NamedSignal object at 0x7fb570a7f9d0; 'app:register-js-api'>`

Trigger when JS api must be registered. At this time `flask.url_for()` is usable

`user_loaded = <blinker.base.NamedSignal object at 0x7fb570a7fa50; 'user_loaded'>`

This signal is sent when user object has been loaded. `g.user` and `current_user` are available.

5.3.6 Module `abilian.core.sqlalchemy`

Additional data types for sqlalchemy

```

class AbilianBaseSAExtension(app=None, use_native_unicode=True, session_options=None)
    Base subclass of flask_sqlalchemy.SQLAlchemy. Add our custom driver hacks.
    apply_driver_hacks(app, info, options)

class JSON(*args, **kwargs)
    Stores any structure serializable with json.
    Usage JSON() Takes same parameters as sqlalchemy.types.Text
    impl
        alias of Text
    process_bind_param(value, dialect)
    process_result_value(value, dialect)

class JSONUniqueListType(*args, **kwargs)
    Store a list in JSON format, with items made unique and sorted.
    process_bind_param(value, dialect)
    python_type

class Locale(*args, **kwargs)
    Store a babel.Locale instance
    impl
        alias of UnicodeText
    process_bind_param(value, dialect)
    process_result_value(value, dialect)
    python_type

class MutationDict
    Provides a dictionary type with mutability support.
    clear()
    classmethod coerce(key, value)
        Convert plain dictionaries to MutationDict.
    pop(key, *args)
    popitem()
    setdefault(key, failobj=None)
    update(other)

class MutationList
    Provides a list type with mutability support.
    append(item)
    classmethod coerce(key, value)
        Convert list to MutationList.

```

extend(*other*)
insert(*idx, value*)
pop(*i=-1*)
remove(*item*)
reverse()
sort(**args*, ***kwargs*)

SQLAlchemy

alias of AbilianBaseSAExtension

class Timezone(**args*, ***kwargs*)

Store a `pytz.tzfile.DstTzInfo` instance

impl

alias of `UnicodeText`

process_bind_param(*value, dialect*)

process_result_value(*value, dialect*)

python_type

class UUID(**args*, ***kwargs*)

Platform-independent UUID type.

Uses PostgreSQL's UUID type, otherwise uses CHAR(32), storing as stringified hex values.

From SQLAlchemy documentation.

impl

alias of CHAR

load_dialect_impl(*dialect*)

process_bind_param(*value, dialect*)

process_result_value(*value, dialect*)

JSONDict(**args*, ***kwargs*)

Stores a dict as JSON on database, with mutability support.

JSONList(**args*, ***kwargs*)

Stores a list as JSON on database, with mutability support.

If *kwargs* has a param *unique_sorted* (which evaluated to True), list values are made unique and sorted.

filter_cols(*model, *filtered_columns*)

Return columnnames for a model except named ones. Useful for `defer()` for example to retain only columns of interest

ping_connection(*dbapi_connection, connection_record, connection_proxy*)

Ensure connections are valid.

From: http://docs.sqlalchemy.org/en/rel_0_8/core/pooling.html

In case db has been restarted pool may return invalid connections.

5.3.7 Module `abilian.core.models`

class IdMixin

id = Column(None, Integer(), table=None, primary_key=True, nullable=False)

class Indexable

Mixin with sensible defaults for indexable objects.

object_key

object_type

class Info(kw)**

copy()

class Model(kwargs)**

Base Model class.

metadata = MetaData(bind=None)

query = None

class TimestampedMixin

**created_at = Column(None, DateTime(), table=None, default=ColumnDefault(<function
creation date**

deleted_at = Column(None, DateTime(), table=None)

**updated_at = Column(None, DateTime(), table=None, onupdate=ColumnDefault(<function
last modification date**

SYSTEM = {'auditable': False, 'editable': False}

SYSTEM properties are properties defined by the system and not supposed to be changed manually.

Subject classes (i.e. people, groups, etc.).

See ICOM-ics-v1.0 "Subject Branch".

TODO: I'm not a big fan of the "subject" name. Could be replaced by something else, like "people" or "principal" ?

class User(password=None, **kwargs)

query_class

alias of UserQuery

authenticate(*password*)

display_value(*field_name*, *value*=<object object>)

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

follow(*followee*)

is_admin_of(*group*)

is_following(*other*)

is_member_of(*group*)

join(*group*)

leave(*group*)

set_password(*password*)

Encrypts and sets password.

unfollow(*followee*)

can_login

created_at

deleted_at

email

entity_type = u'abilian.core.models.subjects.User'

first_name

followers

id

is_online

last_active

last_name

locale

name

password

photo

timezone

updated_at

```
class Group(**kwargs)
```

```
    display_value(field_name, value=<object object>)
```

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

```
admins
```

```
created_at
```

```
deleted_at
```

```
description
```

```
entity_type = u'abilian.core.models.subjects.Group'
```

```
id
```

```
members
```

```
name
```

```
photo
```

```
public
```

```
updated_at
```

```
class Principal
```

A principal is either a User or a Group.

```
    has_role(role)
```

```
class OwnedMixin(*args, **kwargs)
```

```
    creator = <RelationshipProperty at 0x7fb56e464690; no key>
```

```
    creator_id = Column(None, NullType(), ForeignKey('user.id'), table=None)
```

```
    creator_name
```

```
    owner = <RelationshipProperty at 0x7fb56e45cb90; no key>
```

```
    owner_id = Column(None, NullType(), ForeignKey('user.id'), table=None)
```

```
    owner_name
```

Blob. References to files stored in a on-disk repository

```
class Blob(value=None, *args, **kwargs)
```

Model for storing large file content.

Files are stored on-disk, named after their uuid. Repository is located in instance folder/data/files.

query_class

alias of BlobQuery

display_value(*field_name*, *value*=<object object>)

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

file

Return `pathlib.Path` object used for storing value

id**md5**

Return md5 from meta, or compute it if absent

meta**size**

Return size in bytes of value

uuid**value**

Binary value content

class BlobQuery(*entities*, *session*=None)

Query class for Blob objects

by_uuid(*uuid*)

Like `.get()` but by uuid

Parameters **uuid** – a *string* or an *uuid*.

class SupportTagging**class Tag**(***kwargs*)

Tags are text labels that can be attached to entities.

They are namespaced, so that independent group of tags can be defined in the application. The default namespace is "default".

display_value(*field_name*, *value*=<object object>)

Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.

display_value should be used instead of directly getting field value.

If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

entities

entities attached to this tag

id

label

Label visible to the user

ns

namespace

is_support_tagging(*obj*)

Parameters *obj* – a class or instance

register(*cls*)

Register an Entity as a taggable class.

Can be used as a class decorator:

```
@tag.register
class MyContent(Entity):
    . . .
```

TAGS_ATTR = `'__tags__'`

backref attribute on tagged elements

class **Comment**(**args*, ***kwargs*)

A Comment related to an Entity.

SLUG_SEPARATOR = `u'-'`

body

comment's main content

created_at

creator

creator_id

deleted_at

entity

Commented entity

entity_id

entity_type = `'abilian.core.models.comment.Comment'`

id

meta

name

owner

owner_id

slug

updated_at

class Commentable

for_entity(*obj*, *check_commentable=False*)
Return comments on an entity.

is_commentable(*obj*)

Parameters *obj* – a class or instance

register(*cls*)

Register an Entity as a commentable class.

Can be used as a class decorator:

```
@comment.register
class MyContent(Entity):
    ...
```

ATTRIBUTE = '__comments__'

name of backref on target Entity object

class Attachment(*args, **kwargs)

An Attachment owned by an Entity.

SLUG_SEPARATOR = u'-'

blob

file. Stored in a Blob

blob_id

created_at

creator

creator_id

deleted_at

description

entity

owning entity

entity_id

entity_type = 'abilian.core.models.attachment.Attachment'

id

meta

name

owner

owner_id

slug

updated_at

class SupportAttachment

for_entity(*obj*, *check_support_attachments=False*)
Return attachments on an entity.

is_support_attachments(*obj*)

Parameters *obj* – a class or instance

register(*cls*)

Register an Entity as a attachmentable class.

Can be used as a class decorator:

```
@attachment.register
class MyContent(Entity):
    . . .
```

set_attachment_name(*mapper*, *connection*, *target*)

ATTRIBUTE = `'__attachments__'`

name of backref on target Entity object

class BaseMixin

to_dict()

to_json()

column_names

5.3.8 Module `abilian.core.util`

Various tools that don't belong some place specific.

class BasePresenter(*model*)

A presenter wraps a model and adds specific (often, web-centric) accessors. subclass to make it useful. Presenters are immutable.

classmethod **wrap_collection**(*models*)

class Pagination(*page*, *per_page*, *total_count*)

iter_pages(*left_edge=2*, *left_current=2*, *right_current=5*, *right_edge=2*)

has_next

has_prev

next

pages

prev

class memoized(*func*)

Decorator. Caches a function's return value each time it is called. If called later with the same arguments, the cached value is returned (not reevaluated).

class timer(*f*)

Decorator that measures the time it takes to run a function.

fqn(*cls*)

Fully Qualified Class Name

friendly_fqn(*cls_name*)

Friendly name of fully qualified class name. :param *cls_name*: a string or a class

get_params(*names*)

Returns a dictionary with params from request.

TODO: I think we don't use it anymore and it should be removed before someone gets hurt.

local_dt(*dt*)

Return an aware datetime in system timezone, from a naive or aware datetime. Naive datetime are assumed to be in UTC TZ.

noproxy(*obj*)

Unwrap obj from `werkzeug.local.LocalProxy` if needed. This is required if one want to test `isinstance(obj, SomeClass)`.

pdb_on_error(*fn*)

Decorator to trigger (i)pdb on exception inside decorated function. Active only in DEBUG mode. Useful to debug POST only views for example.

slugify(*value*, *separator=u'-'*)

Slugify an unicode string, to make it URL friendly.

utc_dt(*dt*)

set UTC timezone on a datetime object. A naive datetime is assumed to be in UTC TZ

5.4 Package `abilian.services`

5.4.1 Module `abilian.services.base`

exception ServiceNotRegistered

class Service(*app=None*)

Base class for services.

AppStateClass

State class to use for this Service

alias of `ServiceState`

static if_running(*meth*)
 Decorator for service methods that must be ran only if service is in running state.

init_app(*app*)

start(*ignore_state=False*)
 Starts the service.

stop(*ignore_state=False*)
 Stops the service.

app_state
 Current service state in current application.
 :raise:RuntimeError if working outside application context.

name = None
 service name in Application.extensions / Application.services

running
Returns *False* if working outside application context, if service is not registered on current application, or if service is halted for current application.

class ServiceState(*service, running=False*)
 Service state stored in Application.extensions

running = False

service = None
 reference to Service instance

5.4.2 Module `abilian.services.activity`

class ActivityEntry(*kwargs*)**
 Main table for all activities.

display_value(*field_name, value=<object object>*)
 Return display value for fields having 'choices' mapping (stored value -> human readable value). For other fields it will simply return field value.
display_value should be used instead of directly getting field value.
 If *value* is provided it is "translated" to a human-readable value. This is useful for obtaining a human readable label from a raw value

actor

actor_id

happened_at

id

object

```

    object_id
    object_type
    target
    target_id
    target_type
    verb
class ActivityService(app=None)

    static entries_for_actor(actor, limit=50)
    init_app(app)
    log_activity(sender, actor, verb, object, target=None)
    start()
    stop()
    name = 'activity'

```

5.4.3 Module `abilian.services.audit`

5.4.4 Module `abilian.services.conversion`

Conversion service.

Hardcoded to manage only conversion to PDF, to text and to image series.

Includes result caching (on filesystem).

Assumes poppler-utils and LibreOffice are installed.

TODO: rename Converter into ConversionService ?

exception ConversionError

```
class AbiwordPDFHandler(*args, **kwargs)
```

```
    convert(blob, **kw)
```

```
    accepts_mime_types = ['application/msword', 'application/vnd.oasis.opendocument.text', 't
```

```
    produces_mime_types = ['application/pdf']
```

```
class AbiwordTextHandler(*args, **kwargs)
```

```
    convert(blob, **kw)
```

```
    accepts_mime_types = ['application/msword']
```

```

    produces_mime_types = ['text/plain']
class Cache

    clear()
    get(key)
    set(key, value)
    CACHE_DIR = None
class CloudoooPdfHandler(*args, **kwargs)
    Handles conversion from OOo to PDF.

    Highly inefficient since file are serialized in base64 over HTTP.
    Deactivated because it's so hard to set up.
    FIXME: needs cleanup, or removal.

    convert(key)
    SERVER_URL = 'http://localhost:8011'
    accepts_mime_types = ['application/*']
    pivot_format_map = {'pptx': 'odp', 'xlsx': 'ods', 'docx': 'odt', 'doc': 'odt', 'ppt': 'odp', 'xls': 'odt'}
    produces_mime_types = ['application/pdf']
class Converter

    clear()
    static digest(blob)
    get_image(digest, blob, mime_type, index, size=500)
        Return an image for the given content, only if it already exists in the image
        cache
    get_metadata(digest, content, mime_type)
        Gets a dictionary representing the metadata embedded in the given content.
    has_image(digest, mime_type, index, size=500)
        Tell if there is a preview image
    init_app(app)
    init_work_dirs(cache_dir, tmp_dir)
    register_handler(handler)
    to_image(digest, blob, mime_type, index, size=500)
        Converts a file to a list of images. Returns image at the given index.
    to_pdf(digest, blob, mime_type)

```

to_text(*digest, blob, mime_type*)
Converts a file to plain text.

Useful for full-text indexing. Returns an unicode string.

class Handler(*args, **kwargs)

accept(*source_mime_type, target_mime_type*)
Generic matcher based on patterns.

convert(*key, **kw*)

init_app(*app*)

TMP_DIR

accepts_mime_types = []

encoding_sniffer

mime_sniffer

produces_mime_types = []

class ImageMagickHandler(*args, **kwargs)

convert(*blob, **kw*)

accepts_mime_types = ['image/*']

produces_mime_types = ['application/pdf']

class PdfToPpmHandler(*args, **kwargs)

convert(*blob, size=500*)

Size is the maximum horizontal size.

accepts_mime_types = ['application/pdf']

produces_mime_types = ['image/jpeg']

class PdfToTextHandler(*args, **kwargs)

convert(*blob, **kw*)

accepts_mime_types = ['application/pdf']

produces_mime_types = ['text/plain']

class UnoconvPdfHandler(*args, **kwargs)

Handles conversion from office documents (MS-Office, OOo) to PDF.

Uses unoconv.

convert(*blob, **kw*)

Unoconv converter called.

```

    init_app(app)
    accepts_mime_types = ['application/vnd.oasis.*', 'application/msword', 'application/mspow
    produces_mime_types = ['application/pdf']
    run_timeout = 60
    unoconv = 'unoconv'
    unoconv_version

class WwwareTextHandler(*args, **kwargs)

    convert(blob, **kw)
    accepts_mime_types = ['application/msword']
    produces_mime_types = ['text/plain']

get_tmp_dir()
make_temp_file(*args, **kws)

```

5.4.5 Module `abilian.services.image`

Provides tools (currently: only functions, not a real service) for image processing.

resize(*orig*, *width*, *height*, *mode='fit'*)

SCALE = 'scale'

resize without retaining original proportions

FIT = 'fit'

resize image and retain original proportions. Image width and height will be at most specified width and height, respectively; At least width or height will be equal to specified width and height, respectively.

CROP = 'crop'

crop image and resize so that it matches specified width and height.

5.4.6 Module `abilian.services.indexing`

service

Index documents using whoosh

class **WhooshIndexService**(*args, **kwargs)

Index documents using whoosh

AppStateClass

alias of `IndexServiceState`

after_commit(*session*)

Any db updates go through here. We check if any of these models have

`__searchable__` fields, indicating they need to be indexed. With these we update the whoosh index for the model. If no index exists, it will be created here; this could impose a penalty on the initial commit of a model.

after_flush(*session, flush_context*)

clear()

Remove all content from indexes, and unregister all classes.

After `clear()` the service is stopped. It must be started again to create new indexes and register classes.

clear_update_queue(*app=None*)

get_document(*obj, adapter=None*)

index(*name='default'*)

index_objects(*objects, index='default'*)

Bulk index a list of objects.

init_app(*app*)

init_indexes()

Create indexes for schemas.

register_class(*cls, app_state=None*)

Registers a model class

register_classes()

register_search_filter(*func*)

Register a function that returns a query used for filtering search results. This query is And'ed with other filters.

If no filtering should be performed the function must return `None`.

register_value_provider(*func*)

Register a function that may alter content of indexable document.

It is used in `get_document()` and called after adapter has built document.

The function must accept (`document, obj`) as arguments, and return the new document object.

search(*q, index='default', fields=None, Models=(), object_types=(), prefix=True, facet_by_type=None, **search_args*)

Interface to search indexes.

Parameters

- **q** – unparsed search string.
- **index** – name of index to use for search.
- **fields** – optionnal mapping of field names -> boost factor?
- **Models** – list of Model classes to limit search on.
- **object_types** – same as *Models*, but directly the model string.

- **prefix** – enable or disable search by prefix
- **facet_by_type** – if set, returns a dict of `object_type`: results with a max of *limit* matches for each type.
- **search_args** – any valid parameter for `whoosh.searching.Search.search()`. This includes *limit*, *groupedby* and *sortedby*

search_for_class(*query, cls, index='default', **search_args*)

searchable_object_types()

List of (`object_types`, friendly name) present in the index.

start()

default_search_fields

Return default field names and boosts to be used for searching. Can be configured with `SEARCH_DEFAULT_BOOSTS`

name = 'indexing'

indexable_role(*principal*)

Returns a string suitable for query against `allowed_roles_and_users` field.

Parameters principal – It can be Anonymous, Authenticated, or an instance of User or Group.

5.4.7 Module `abilian.services.security`

service

Security service, manages roles and permissions.

class SecurityServiceState(*service, running=False*)

needs_db_flush = False

True if security has changed

use_cache = True

Anonymous

marker for role assigned to 'Anonymous'

Authenticated

marker for role assigned to 'Authenticated'

5.5 Package `abilian.web`

5.5.1 Module `abilian.web.attachments`

register_plugin(*app*)

5.5.2 Module `abilian.web.comments`

register_plugin(*app*)

5.5.3 Module `abilian.web.decorators`

Useful decorators for web views.

templated(*template=None*)

The idea of this decorator is that you return a dictionary with the values passed to the template from the view function and the template is automatically rendered.

@deprecated

5.5.4 Module `abilian.web.filters`

Add a few specific filters to Jinja2.

abbrev(*s, max_size*)

age(*dt, now=None*)

autoescape(*filter_func*)

Decorator to autoescape result from filters.

babel2datepicker(*pattern*)

Converts date format from babel (<http://babel.pocoo.org/docs/dates/#date-fields>) to a format understood by bootstrap-datepicker.

date(*value, format='EE, d MMMM y'*)

date_age(*dt, now=None*)

filesize(*d*)

init_filters(*env*)

labelize(*s*)

linkify(*eval_ctx, *args, **kwargs*)

nl2br(*eval_ctx, *args, **kwargs*)

Replace newlines with `
`.

obj_to_url(*obj*)

Find url for obj using `url_for()`, return empty string is not found.

`url_for()` is also provided in jinja context, the filtering version is forgiving when *obj* has no default view set.

paragraphs(*eval_ctx, *args, **kwargs*)

Blank lines delimitates paragraphs.


```
roughsize(size, above=20, mod=10)
    6 -> '6' 15 -> '15' 134 -> '130+'
to_timestamp(dt)
```

5.5.5 Module `abilian.web.action`

class ActionRegistry

The Action registry.

This is a Flask extension which registers Action sets. Actions are grouped by category and are ordered by registering order.

From your application use the instantiated registry actions.

The registry is available in jinja2 templates as *actions*.

actions(context=None)

Return a mapping of category => actions list.

Actions are filtered according to `Action.available()`.

if *context* is None, then current action context is used (context).

for_category(category, context=None)

Returns actions list for this category in current application.

Actions are filtered according to `Action.available()`.

if *context* is None, then current action context is used (context)

init_app(app)

installed(app=None)

Return *True* if the registry has been installed in current applications

register(*actions)

Register *actions* in the current application. All *actions* must be an instance of `Action` or one of its subclasses.

If *overwrite* is *True*, then it is allowed to overwrite an existing action with same name and category; else *ValueError* is raised.

context

Return action context (dict type). Applications can modify it to suit their needs.

```
class Action(category, name, title=None, description=None, icon=None, url=None,
              endpoint=None, condition=None, status=None, template=None, tem-
              plate_string=None, button=None, css=None)
```

Action interface.

```
class Endpoint(name, *args, **kwargs)
```

get_kwargs()

Hook for subclasses.

The key and values in the returned dictionary can be safely changed without side effects on `self.kwargs` (provided you don't alter mutable values, like calling `list.pop()`).

`Action.available(context)`

Determine if this actions is available in this *context*.

Parameters context – a dict whose content is left to application needs; if condition is a callable it receives *context* in parameter.

`Action.get_render_args(**kwargs)`

`Action.pre_condition(context)`

Called by `available()` before checking condition.

Subclasses may override it to ease creating actions with repetitive check (for example: actions that apply on a given content type only).

`Action.render(**kwargs)`

`Action.url(context=None)`

`Action.CSS_CLASS = u'action action-{category} action-{category}-{name}'`

`Action.category = None`

`Action.condition = None`

A boolean (or something that can be converted to boolean), or a callable which accepts a context dict as parameter. See `available()`.

`Action.description`

`Action.enabled`

`Action.endpoint`

A Endpoint instance, a string for a simple endpoint, a tuple (`endpoint_name`, `kwargs`) or a callable which accept a `:` context dict and returns one of those a valid values.

`Action.icon`

`Action.name = None`

`Action.status`

`Action.template_string = u'{% - if action.icon`

`Action.title`

class ModalActionMixin

`template_string = u'{%`

5.5.6 Module `abilian.web.nav`

Navigation elements.

Abilian define these categories:

section: Used for navigation elements relevant to site section

user: User for element that should appear in user menu

class BreadcrumbItem(*label=u'', url=u'#', icon=None, description=None*)

A breadcrumb element has at least a label or an icon.

render()

description = None

Additional text, can be used as tooltip for example

icon = None

Icon to use.

label = None

Label shown to user. May be an `i18n` string instance

template_string = u'{{%- if url %}}{{%- endif %}}{{%- if item.icon %}} {{ item.i

url

class NavGroup(*category, name, items=(), *args, **kwargs*)

A navigation group renders a list of items.

append(*item*)

get_render_args(***kwargs*)

insert(*pos, item*)

status

template_string = '\n <ul class="nav navbar-nav {{ action.css_class }}">\n <li class="dropo

class NavItem(*category, name, divider=False, *args, **kwargs*)

A single navigation item.

divider = False

path

status

5.5.7 Module `abilian.web.forms`

Extensions to WTForms fields, widgets and validators.

class Form(**args, **kwargs*)

```

class FormPermissions(default=Role(u'anonymous'), read=None, write=None,
                      fields_read=None, fields_write=None)
    Form role/permission manager

    has_permission(permission, field=None, obj=None, user=None)

```

5.5.8 Module `abilian.web.views`

class `View`

Base class to use for all class based views.

The view instance is accessible in `g` and is set in `actions` context.

`dispatch_request(*args, **kwargs)`

`prepare_args(args, kwargs)`

If view arguments need to be prepared it can be done here.

A typical use case is to take an identifier, convert it to an object instance and maybe store it on view instance and/or replace identifier by object in arguments.

`redirect(url)`

Shortcut all call stack and return response.

usage: `self.response(url_for(...))`

class `JSONView`

Base view for JSON GET.

Renders as JSON when requested by Ajax, renders as HTML when requested from browser.

`data(*args, **kwargs)`

This method should return data to be serialized using JSON

`get(*args, **kwargs)`

`prepare_args(args, kwargs)`

`methods = ['GET']`

class `Registry(*args, **kwargs)`

Registry for default (canonical) views for entities.

There is one registry per application instance.

`register(entity, url_func)`

Associates a `url_func` with entity's type.

:param:entity: an `abilian.core.extensions.db.Model` class or instance.

:param:url_func: any callable that accepts an entity instance and return an url for it.

`url_for(entity=None, object_type=None, object_id=None, **kwargs)`

Returns canonical view for given entity instance.

If no view has been registered the registry will try to find an endpoint named with entity's class lowercased followed by '.view' and that accepts `object_id=entity.id` to generates an url.

Parameters

- **entity** – a instance of a subclass of `abilian.core.extensions.db.Model`, `whoosh.searching.Hit` or `dict`
- **object_id** – if *entity* is not an instance, this parameter must be set to target id. This is usefull when you know the type and id of an object but don't want to retrieve it from DB.

Raises KeyError if no view can be found for the given entity.

```
class default_view(app_or_blueprint, entity, id_attr='object_id', endpoint=None,
                  kw_func=None)
```

Decorator to register a view as default view for given entity class.

Parameters

- **id_attr** – url parameter name for object id.
- **endpoint** – endpoint to use, defaults to view function's name.
- **kw_func** – function to process keywords to be passed to `url_for`. Useful for additional keywords. This function receives: `kw, obj, obj_type, obj_id, **kwargs`. It must return `kw`.

```
class BaseObjectView(Model=None, pk=None, base_template=None, *args,
                    **kwargs)
```

Base class common to all database objects views

breadcrumb()

Return `nav.BreadcrumbItem` instance for this object.

This method may return a list of `BreadcrumbItem` instances. Return *None* if nothing.

get(*args, **kwargs)

init_object(args, kwargs)

This method is responsible for setting `obj`. It is called during `prepare_args()`.

prepare_args(args, kwargs)

Model = None

base_template = 'base.html'

methods = ['GET']

obj = None

pk = 'object_id'

template = None

template_kwargs

Template render arguments. You can override *base_template* for instance. Only *view* cannot be overridden.

title = None

```
class ObjectView(Model=None, pk=None, Form=None, template=None, *args,
                 **kwargs)
```

View objects

get_form_kwargs()**index_url()****prepare_args(args, kwargs)**

form is initialized here. See also `View.prepare_args()`.

redirect_to_index()**Form = None****form = None****methods = ['GET']****permission = Permission(u'read')****template = 'default/object_view.html'****template_kwargs**

provides form to templates

```
class ObjectEdit(Model=None, pk=None, Form=None, template=None,
                 view_endpoint=None, message_success=None, *args, **kwargs)
```

Edit objects

after_populate_obj()

Called after *self.obj* values have been updated, and *self.obj* attached to an ORM session.

before_populate_obj()

This method is called after form has been validated and before calling *form.populate_obj()*. Sometimes one may want to remove a field from the form because it's non-sense to store it on edited object, and use it in a specific manner, for example:

```
image = form.image
del form.image
store_image(image)
```

cancel()**commit_success()**

Called after object has been successfully saved to database

edit()

form_csrf_invalid()

Called when a form doesn't validate *only* because of csrf token expiration.

This works only if form is an instance of flask_wtf.form.SecureForm. Else default CSRF protection (before request) will take place.

It must return a valid Flask.Response instance. By default it returns to edit form screen with an informative message.

form_invalid()

When a form doesn't validate this method is called.

It may return a Flask.Response instance, to handle specific errors in custom screens.

Else the edit form screen is returned with error(s) highlighted.

This method is useful for detecting edition conflict using hidden fields and show a specific screen to help resolve the conflict.

form_valid()

Save object.

Called when form is validated.

get_form_buttons(*args, **kwargs)**handle_action(action)****handle_commit_exception(exc)**

hook point to handle exception that may happen during commit.

It is the responsibility of this method to perform a rollback if it is required for handling *exc*. If the method does not handle *exc* it should do nothing and return None.

Returns

- a valid Response if exception is handled.
- *None* if exception is not handled. Default handling happens.

message_success()**post(*args, **kwargs)****prepare_args(args, kwargs)****put()****redirect_to_view()****validate()****view_url()****action = None****activity_target**

Return *target* to use when creating activity.

```

activity_verb = 'update'
button = None
buttons
data = None
decorators = (<function support_graceful_failure at 0x7fb56f728050>,)
methods = ['GET', 'POST', 'PUT']
permission = Permission(u'write')
template = 'default/object_edit.html'
class ObjectCreate(*args, **kwargs)
    Create a new object
breadcrumb()
cancel()
chain_create()
create()
get_form_buttons(*args, **kwargs)
get_form_kwargs()
init_object(args, kwargs)
activity_verb = 'post'
chain_create_allowed = False
methods = ['GET', 'POST', 'PUT']
class ObjectDelete(Model=None, pk=None, Form=None, template=None,
                    view_endpoint=None, message_success=None, *args, **kwargs)
    Delete object. Supports DELETE verb.
delete()
get_form_buttons(*args, **kwargs)
init_object(args, kwargs)
    This method is responsible for setting obj. It is called during
    prepare_args().
activity_verb = 'delete'
methods = ['POST']
class JSONBaseSearch(*args, **kwargs)

data(q, *args, **kwargs)
get_item(obj)
    Return a result item

```


Parameters obj – Instance object

Returns a dictionary with at least *id* and *text* values

get_results(*q, *args, **kwargs*)

prepare_args(*args, kwargs*)

Model = None

methods = ['GET']

minimum_input_length = 2

class JSONModelSearch(*args, **kwargs)

Base class for json sqlalchemy model search, as used by select2 widgets for example

filter(*query, q, **kwargs*)

get_item(*obj*)

Return a result item

Parameters obj – Instance object

Returns a dictionary with at least *id* and *text* values

get_label(*obj*)

get_results(*q, *args, **kwargs*)

options(*query*)

order_by(*query*)

methods = ['GET', 'OPTIONS']

class JSONWhooshSearch(*args, **kwargs)

Base class for JSON Whoosh search, as used by select2 widgets for example

get_item(*hit*)

Return a result item

Parameters hit – Hit object from Whoosh

Returns a dictionary with at least *id* and *text* values

get_results(*q, *args, **kwargs*)

methods = ['GET']

5.5.9 Module abilian.web.frontend

Front-end for a CRM app.

This should eventually allow implementing very custom CRM-style application.

class BaseEntityView(*module, *args, **kwargs*)

```

breadcrumb()
check_access()
init_object(args, kwargs)
prepare_args(args, kwargs)
redirect_to_index()
can_create
can_delete
can_edit
pk = 'entity_id'
single_view
class CRUDApp(app, modules=None)

    add_module(module)
    create_blueprint(module)
class DefaultRelatedView(label, attr, column_names, options=None)
    Default view used by Module for items directly related to entity
    render(entity)
class EntityCreate(module, *args, **kwargs)

    breadcrumb()
    check_access()
    prepare_args(args, kwargs)
    methods = ['GET', 'POST', 'PUT']
    template = 'default/single_view.html'
    template_kwargs
class EntityDelete(module, *args, **kwargs)

    methods = ['POST']
class EntityEdit(module, *args, **kwargs)

    methods = ['GET', 'POST', 'PUT']
    template = 'default/single_view.html'
    template_kwargs

```

```

class EntityView(module, *args, **kwargs)

    methods = ['GET']

    object_actions

    template = 'default/single_view.html'

    template_kwargs

class ListJson(module, *args, **kwargs)
    JSON endpoint, for AJAX-backed table views.

    data(*args, **kwargs)

    methods = ['GET']

class Module

    create_cls
        alias of EntityCreate

    delete_cls
        alias of EntityDelete

    edit_cls
        alias of EntityEdit

    json_search_cls
        alias of JSONWhooshSearch

    view_cls
        alias of EntityView

    create_blueprint(crud_app)
        Create a Flask blueprint for this module.

    get_grouped_actions()

    init_related_views()

    is_current()

    list_json2()
        Other JSON endpoint, this time used for filling select boxes dynamically.

        NB: not used currently.

    list_view()

    ordered_query(request, query=None)
        Order query according to request args.

        If query is None, the query is generated according to request args with
        self.query(request)

```

```

query(request)
    Return filtered query based on request args
register_actions()
action_category
base_query
    Return a query instance for managed_class.
base_template = 'base.html'
blueprint = None
edit_form_class = None
endpoint = None
id = None
label = None
list_view_columns = []
managed_class = None
name = None
read_query
    Return a query instance for managed_class filtering on READ permission
related_views = []
search_criteria = (<abilian.web.search.criterion.TextSearchCriterion object at 0x7fb56d...
single_view = None
static_folder = None
tableview_options = {}
url = None
view_form_class = None
view_new_save_and_add = False
view_options = None
view_template = None
class ModuleAction(module, group, name, *args, **kwargs)
    Base action class for Module actions.

    Basic condition is simple: category must match the string 'module:{module.endpoint}'
pre_condition(context)
class ModuleActionDropDown(module, group, name, *args, **kwargs)

```

```
template_string = u'\n <div class="btn-group">\n <button type="button" class="{ action.name} ">{ action.name}
class ModuleActionGroup(module, group, name, *args, **kwargs)
```

```
template_string = u'<div class="btn-group" role="group" aria-label="{ action.name} ">{ action.name}
class ModuleActionGroupItem(module, group, name, *args, **kwargs)
```

```
class ModuleMeta(classname, bases, fields)
    Module metaclass.
```

Does some precalculations (like getting list of view methods from the class) to avoid calculating them for each view class instance.

```
class ModuleView(module, *args, **kwargs)
    Mixin for module base views.
```

Provide module.

```
module = None
    Module instance
```

```
class RelatedView
    A base class for related views
```

```
render(entity)
    Return a dict with keys 'label', 'attr_name', 'rendered', 'size'
```

```
add_to_recent_items(entity, type='ignored')
```

```
expose(url='/', methods=('GET', ))
    Use this decorator to expose views in your view classes.
```

url Relative URL for the view

methods Allowed HTTP methods. By default only GET is allowed.

```
labelize(s)
```

```
make_single_view(form, **options)
```

5.5.10 Module `abilian.web.tags`

```
register_plugin(app)
```

5.5.11 Module `abilian.web.util`

A few utility functions.

See <https://docs.djangoproject.com/en/dev/topics/http/shortcuts/> for more ideas of stuff to implement.

```
capture_stream_errors(logger, msg)
    Decorator that capture and log errors during streamed response.
```

Decorated function is automatically decorated with `:func:<Flask.stream_with_context>`.

@param logger: a logger name or logger instance @param msg: message to log

get_object_or_404(cls, *args)

Shorthand similar to Django's `get_object_or_404`.

send_file_from_directory(filename, directory, app=None)

Helper to add static rules, like in `abilian.app.app`

Example use:

```
app.add_url_rule(
    app.static_url_path + '/abilian/<path:filename>',
    endpoint='abilian_static',
    view_func=partial(send_file_from_directory,
                      directory='/path/to/static/files/dir'))
```

url_for(obj, **kw)

Polymorphic variant of Flask's `url_for` function.

Behaves like the original function when the first argument is a string. When it's an object, it

5.6 Package `abilian.testing`

Elements to build test cases for an `abilian.app.Application`

class TestConfig

Base class config settings for test cases.

The environment variable `SQLALCHEMY_DATABASE_URI` can be set to easily test against different databases.

BABEL_DEFAULT_LOCALE = 'en'

BABEL_DEFAULT_TIMEZONE = 'UTC'

CELERY_ALWAYS_EAGER = True

CELERY_EAGER_PROPAGATES_EXCEPTIONS = True

CSRF_ENABLED = False

MAIL_SENDER = 'test@testcase.app.tld'

SECRET_KEY = 'SECRET'

SITE_NAME = u'Abilian Test'

SQLALCHEMY_DATABASE_URI = 'sqlite://'

SQLALCHEMY_ECHO = False

TESTING = True

TRAP_BAD_REQUEST_ERRORS = True

TRAP_HTTP_EXCEPTIONS = False

WTF_CSRF_ENABLED = False

class BaseTestCase(*methodName='runTest'*)

Base test case to test an abilian.app.Application.

It will create an instance path that will be used and shared for all tests defined in this test case.

The test case creates a clean database before running each test by calling `abilian.app.Application.create_db()` et destroys it after test.

Additionally if the database is postgresql a schema is created for each test and the connection role is altered to use this DB schema. This is done to ensure harder test isolation.

application_class

Application class to instantiate.

alias of Application

config_class

Config class to use for `application_class` configuration.

alias of TestConfig

assert_302(*response*)

assert_valid(*response*)

Validate `response.data` as HTML using validator provided by `config.VALIDATOR_URL`.

client_login(*email, password*)

Like `login()` but with a web login request. Can be used as contextmanager.

All subsequent request made with `self.client` will be authenticated until `client_logout()` is called or exit of `with` block.

client_logout()

Like `logout()` but with a web logout

create_app()

get(*url, validate=True*)

Validates HTML if asked by the config or the Unix environment.

get_setup_config()

Called by `create_app()` Override this if you want to tweak the config before `application_class` is instanciated.

Returns an instance of `config_class`, or anything that is a valid config object for Flask.

login(*user, remember=False, force=False*)

Perform user login for `user`, so that code needing a logged-in user can work.

This method can also be used as a context manager, so that logout is performed automatically:

```
with self.login(user):  
    self.assertEqual(...)
```

See also:

`logout()`

login_system()

Perform login with SYSTEM user. Can be used as a context manager.

See also:

`login()`, `logout()`

logout()

Perform user logout.

See also:

`login()`

setUp()

classmethod setUpClass()

tearDown()

classmethod tearDownClass()

validate(*url, content, content_type, validator_url*)

CLEAR_PASSWORDS = True

set to False to use cryptographic scheme (standard) for user password. By default the testcase switches to clear text to avoid longer running.

SERVICES = ()

list services names that should be started during setUp. 'repository' and 'session_repository' services are always started, do not list them here.

SQLALCHEMY_WARNINGS_AS_ERROR = True

By default sqlalchemy treats warnings as info. This settings makes sqlalchemy warnings treated as errors (and thus making test fail). The rationale is that it improves code quality (for example most frequent warnings are non-unicode string assigned on a Unicode column; this setting force you to be explicit and ensure unicode where appropriate)

TESTING_BUILD_ASSETS = False

enable assets building during tests. False by default.

TEST_INSTANCE_PATH = None

Path to instance folder. Mostly set for internal use, since you should access the value on the application (see [Flask instance folders](#)) This parameter is set by setUpClass()

db

Shortcut to the application db object.

Changelog for Abilian Core

6.1 0.4.5 (unreleased)

TODO

6.2 0.4.4 (2015-08-07)

6.2.1 Design / UI

- Navbar is now non-fluid.

6.2.2 Updates

- Upgrade Jinja to 2.8 and Babel to 2.0

6.2.3 Fixes

- Fixed image cropping.

6.3 0.4.3 (2015-07-29)

Another release because there was a version number issue with the previous one.

6.4 0.4.2 (2015-07-29)

6.4.1 Bugfixes / cleanup

- Replace Scribe by CKEditor for better IE compatibility.
- Smaller bug fixes and code cleanups

6.5 0.4.1 (2015-07-21)

6.5.1 Bugfixes / cleanup

- permission: no-op when service not running
- JS fixes
- CSS fixes
- <https://github.com/mitsuhiko/flask/issues/1135>

6.6 0.4.0 (2015-07-15)

6.6.1 Features

- Object level permissions
- Add “meta” properties to entities
- Attached files to entities
- More flexible search filters
- Avatars
- Tag engine (alpha)

6.6.2 Fixes / cleanup

- JS: Update ravenjs, requirejs, bootbox, jquery, scribe

6.7 0.3.6 (2015-05-27)

6.7.1 Fixes

- security service: fix exception on has_role()

6.8 0.3.5 (2015-05-27)

6.8.1 Features

- default user avatar is now a circle with their last name initial (#12)
- add PRIVATE_SITE, app, blueprint and endpoint access controller registration
- Better handling of CSRF failures
- add dynamic row widget js
- js: add datatable advanced search

6.8.2 Fixes

- CSS (Bootstrap) fixes
- Permissions fixes

6.9 Updates

- Updated Bootstrap to 3.3.4
- Updated flask-login to 0.2.11
- Updated Sentry JS code to 1.1.18

6.10 0.3.4 (2015-04-14)

- updated Select2 to 3.5.2
- enhanced fields and widgets
- set default SQLALCHEMY_POOL_RECYCLE to 30 minutes
- Users admin panel: fix roles not set; fix all assignable roles not listed; fix cannot set password during user creation.

6.11 0.3.3 (2015-03-31)

6.11.1 Features

- Use ravenjs to monitor JS errors with Sentry
- Vocabularies

6.12 0.3.2 (2014-12-23)

- Minor bugfixes

6.13 0.3.1 (2014-12-23)

- Minor bugfixes

6.14 0.3.0 (2014-12-23)

6.14.1 Features

- Added a virus scanner.
- Changed the WYSIWYG editor to Scribe.
- Vocabularies

6.14.2 API changes

- Deprecated the @templated decorator (will be removed in 0.4.0).

6.14.3 Building, tests

- Build: Use pbr to simplify setup.py.
- Dependencies: moved deps to ./requirements.txt + cleanup / update.
- Testing: Tox and Travis config updates.
- Testing: Run tests under Vagrant.
- QA: Fixed many pyflakes warnings.

6.15 0.2.0 (2014-08-07)

- Too long to list.

6.16 0.1.4 (2014-03-27)

- refactored `abilian.core.entities`, `abilian.core.subjects`. New module `abilian.core.models` containing modules: `base`, `subjects`, `owned`.
- Fixed or cleaned up dependencies.
- Fixed `setupwizard`.
- added config value: `BABEL_ACCEPT_LANGUAGES`, to limit supported languages and change order during negotiation
- Switched CSS to LESS.
- Updated to Bootstrap 3.1.1

6.17 0.1.3 (2014-02-03)

- Update some dependencies
- Added login/logout via JSON api
- Added `'createuser'` command

6.18 0.1.2 (2014-01-11)

- added jinja extension to collect JS snippets during page generation and put them at end of document (`"deferred"`)
- added basic javascript to prevent double submission
- Added Flask-Migrate

6.19 0.1.1 (2013-12-26)

- Redesigned indexing:
 - single whoosh index for all objects
 - search results page do not need anymore to fetch actual object from database
 - index security information, used for filtering search results
 - Added `"reindex"` shell command

6.20 0.1 (2013-12-13)

- Initial release.

Credits

7.1 Design, programming

Abilian development team: 2012-2013.

7.2 Art (images, icons)

See links for copyright and licences (usually Creative Commons).

- Background image(s) for login: Kevin Dooley
<http://www.flickr.com/photos/pagedooley/>.
- File types icons: http://www.splitbrain.org/projects/file_icons.
- Animal pictures: http://en.wikipedia.org/wiki/Wikipedia:Featured_pictures/Animals#Animals
- Group pictures: http://en.wikipedia.org/wiki/File:Estudiante_INTEC.jpg,
http://en.wikipedia.org/wiki/File:Salesman_-beach_-_bikini-_sun-27Dec2008.jpg,
http://en.wikipedia.org/wiki/File:Cocacola-5cents-1900_edit1.jpg.
- Group Icon (CC Attribution-Noncommercial-No Derivate 3.0):
<http://www.iconarchive.com/show/soft-scraps-icons-by-deleket/User-Group-icon.html>.

Part II
INDICES AND TABLES

- genindex
- modindex
- search

Symbols

- `_` (in module `abilian.i18n`), 19
 - `__auditable__` (Entity attribute), 22
 - `__default_permissions__` (Entity attribute), 22
 - `__editable__` (Entity attribute), 23
 - `__indexable__` (Entity attribute), 23
 - `__indexation_args__` (Entity attribute), 23
 - `__init__()` (Entity method), 22
 - `__mapper__` (Entity attribute), 23
 - `__mapper_args__` (Entity attribute), 23
 - `__metaclass__` (Entity attribute), 22
 - `__module__` (Entity attribute), 23
 - `__searchable__` (Entity attribute), 23
 - `__table__` (Entity attribute), 23
 - `_l` (in module `abilian.i18n`), 19
 - `_n` (in module `abilian.i18n`), 19
- ## A
- `abbrev()` (in module `abilian.web.filters`), 44
 - `abilian.app` (module), 15
 - `abilian.core.commands` (module), 21
 - `abilian.core.entities` (module), 22
 - `abilian.core.extensions` (module), 25
 - `abilian.core.logging` (module), 26
 - `abilian.core.models` (module), 35
 - `abilian.core.models.attachment` (module), 34
 - `abilian.core.models.base` (module), 29
 - `abilian.core.models.blob` (module), 31
 - `abilian.core.models.comment` (module), 33
 - `abilian.core.models.owned` (module), 31
 - `abilian.core.models.subjects` (module), 29
 - `abilian.core.models.tag` (module), 32
 - `abilian.core.signals` (module), 26
 - `abilian.core.sqlalchemy` (module), 26
 - `abilian.core.util` (module), 35
 - `abilian.i18n` (module), 18
 - `abilian.plugin` (module), 21
 - `abilian.services.activity` (module), 37
 - `abilian.services.audit` (module), 38
 - `abilian.services.base` (module), 36
 - `abilian.services.conversion` (module), 38
 - `abilian.services.image` (module), 41
 - `abilian.testing` (module), 58
 - `abilian.web.action` (module), 45
 - `abilian.web.attachments` (module), 43
 - `abilian.web.comments` (module), 44
 - `abilian.web.decorators` (module), 44
 - `abilian.web.filters` (module), 44
 - `abilian.web.forms` (module), 47
 - `abilian.web.frontend` (module), 53
 - `abilian.web.nav` (module), 47
 - `abilian.web.tags` (module), 57
 - `abilian.web.util` (module), 57
 - `abilian.web.views` (module), 48
 - `AbilianBaseSAExtension` (class in `abilian.core.sqlalchemy`), 26
 - `AbiwordPDFHandler` (class in `abilian.services.conversion`), 38
 - `AbiwordTextHandler` (class in `abilian.services.conversion`), 38
 - `accept()` (Handler method), 40
 - `accepts_mime_types` (`AbiwordPDFHandler` attribute), 38
 - `accepts_mime_types` (`AbiwordTextHandler` attribute), 38

accepts_mime_types (CloudoooPdfHandler attribute), 39
 accepts_mime_types (Handler attribute), 40
 accepts_mime_types (ImageMagickHandler attribute), 40
 accepts_mime_types (PdfToPpmHandler attribute), 40
 accepts_mime_types (PdfToTextHandler attribute), 40
 accepts_mime_types (UnoconvPdfHandler attribute), 41
 accepts_mime_types (WvwareTextHandler attribute), 41
 Action (class in abilian.web.action), 45
 action (ObjectEdit attribute), 51
 Action.Endpoint (class in abilian.web.action), 45
 action_category (Module attribute), 56
 ActionRegistry (class in abilian.web.action), 45
 actions() (ActionRegistry method), 45
 activity (in module abilian.core.signals), 26
 activity_target (ObjectEdit attribute), 51
 activity_verb (ObjectCreate attribute), 52
 activity_verb (ObjectDelete attribute), 52
 activity_verb (ObjectEdit attribute), 51
 ActivityEntry (class in abilian.services.activity), 37
 ActivityService (class in abilian.services.activity), 38
 actor (ActivityEntry attribute), 37
 actor_id (ActivityEntry attribute), 37
 add_access_controller() (Application method), 15
 add_module() (CRUDApp method), 54
 add_static_url() (Application method), 15
 add_to_recent_items() (in module abilian.web.frontend), 57
 add_translations() (Babel method), 19
 add_url_rule() (Application method), 16
 admins (Group attribute), 31
 after_commit() (WhooshIndexService method), 41
 after_flush() (WhooshIndexService method), 42
 after_populate_obj() (ObjectEdit method), 50
 age() (in module abilian.web.filters), 44
 all_entity_classes (in module abilian.core.entities), 25
 Anonymous (in module abilian.services.security), 43
 APP_PLUGINS (Application attribute), 17
 app_state (Service attribute), 37
 append() (MutationList method), 27
 append() (NavGroup method), 47
 Application (class in abilian.app), 15
 application_class (BaseTestCase attribute), 59
 apply_driver_hacks() (AbilianBaseSAExtension method), 27
 AppStateClass (Service attribute), 36
 AppStateClass (WhooshIndexService attribute), 41
 assert_302() (BaseTestCase method), 59
 assert_valid() (BaseTestCase method), 59
 Attachment (class in abilian.core.models.attachment), 34
 ATTRIBUTE (in module abilian.core.models.attachment), 35
 ATTRIBUTE (in module abilian.core.models.comment), 34
 authenticate() (User method), 29
 Authenticated (in module abilian.services.security), 43
 auto_slug (Entity attribute), 23, 25
 autoescape() (in module abilian.web.filters), 44
 available() (Action method), 46

B

Babel (class in abilian.i18n), 19
 babel (in module abilian.i18n), 19, 20
 babel2datepicker() (in module abilian.web.filters), 44
 BABEL_DEFAULT_LOCALE (TestConfig attribute), 58
 BABEL_DEFAULT_TIMEZONE (TestConfig attribute), 58
 base_query (Module attribute), 56

base_template (BaseObjectView attribute), 49
 base_template (Module attribute), 56
 BaseEntityView (class in abilian.web.frontend), 53
 BaseMixin (class in abilian.core.models), 35
 BaseObjectView (class in abilian.web.views), 49
 BasePresenter (class in abilian.core.util), 35
 BaseTestCase (class in abilian.testing), 59
 before_populate_obj() (ObjectEdit method), 50
 blob (Attachment attribute), 34
 Blob (class in abilian.core.models.blob), 31
 blob_id (Attachment attribute), 34
 BlobQuery (class in abilian.core.models.blob), 32
 blueprint (Module attribute), 56
 body (Comment attribute), 33
 breadcrumb() (BaseEntityView method), 53
 breadcrumb() (BaseObjectView method), 49
 breadcrumb() (EntityCreate method), 54
 breadcrumb() (ObjectCreate method), 52
 BreadcrumbItem (class in abilian.web.nav), 47
 button (ObjectEdit attribute), 52
 buttons (ObjectEdit attribute), 52
 by_uuid() (BlobQuery method), 32

C

Cache (class in abilian.services.conversion), 39
 CACHE_DIR (Cache attribute), 39
 can_create (BaseEntityView attribute), 54
 can_delete (BaseEntityView attribute), 54
 can_edit (BaseEntityView attribute), 54
 can_login (User attribute), 30
 cancel() (ObjectCreate method), 52
 cancel() (ObjectEdit method), 50
 capture_stream_errors() (in module abilian.web.util), 57
 category (Action attribute), 46
 CELERY_ALWAYS_EAGER (TestConfig attribute), 58
 celery_app_cls (Application attribute), 15
 CELERY_EAGER_PROPAGATES_EXCEPTIONS (TestConfig attribute), 58
 chain_create() (ObjectCreate method), 52
 chain_create_allowed (ObjectCreate attribute), 52
 check_access() (BaseEntityView method), 54
 check_access() (EntityCreate method), 54
 check_instance_folder() (Application method), 16
 clear() (Cache method), 39
 clear() (Converter method), 39
 clear() (MutationDict method), 27
 clear() (WhooshIndexService method), 42
 CLEAR_PASSWORDS (BaseTestCase attribute), 60
 clear_update_queue() (WhooshIndexService method), 42
 client_login() (BaseTestCase method), 59
 client_logout() (BaseTestCase method), 59
 CloudoooPdfHandler (class in abilian.services.conversion), 39
 coerce() (abilian.core.sqlalchemy.MutationDict class method), 27
 coerce() (abilian.core.sqlalchemy.MutationList class method), 27
 column_names (BaseMixin attribute), 35
 Comment (class in abilian.core.models.comment), 33
 Commentable (class in abilian.core.models.comment), 33
 commit_success() (ObjectEdit method), 50
 components_registered (in module abilian.core.signals), 26
 condition (Action attribute), 46
 config_class (BaseTestCase attribute), 59
 CONFIG_ENVVAR (Application attribute), 17
 configured (Application attribute), 17
 context (ActionRegistry attribute), 45
 ConversionError, 38
 convert() (AbiwordPDFHandler method), 38
 convert() (AbiwordTextHandler method), 38

convert() (CloudoooPdfHandler method), 39
 convert() (Handler method), 40
 convert() (ImageMagickHandler method), 40
 convert() (PdfToPpmHandler method), 40
 convert() (PdfToTextHandler method), 40
 convert() (UnoconvPdfHandler method), 40
 convert() (WvwareTextHandler method), 41
 Converter (class in abilian.services.conversion), 39
 copy() (Info method), 29
 create() (ObjectCreate method), 52
 create_app() (BaseTestCase method), 59
 create_app() (in module abilian.app), 18
 create_blueprint() (CRUDApp method), 54
 create_blueprint() (Module method), 55
 create_cls (Module attribute), 55
 create_db() (Application method), 16
 create_jinja_environment() (Application method), 16
 created_at (Attachment attribute), 34
 created_at (Comment attribute), 33
 created_at (Entity attribute), 23, 25
 created_at (Group attribute), 31
 created_at (TimestampedMixin attribute), 29
 created_at (User attribute), 30
 creator (Attachment attribute), 34
 creator (Comment attribute), 33
 creator (Entity attribute), 23, 25
 creator (OwnedMixin attribute), 31
 creator_id (Attachment attribute), 34
 creator_id (Comment attribute), 33
 creator_id (Entity attribute), 23, 25
 creator_id (OwnedMixin attribute), 31
 creator_name (OwnedMixin attribute), 31
 CROP (in module abilian.services.image), 41
 CRUDApp (class in abilian.web.frontend), 54
 CSRF_ENABLED (TestConfig attribute), 58
 CSS_CLASS (Action attribute), 46

D

data (ObjectEdit attribute), 52
 data() (JSONBaseSearch method), 52
 data() (JSONView method), 48
 data() (ListJson method), 55
 date() (in module abilian.web.filters), 44
 date_age() (in module abilian.web.filters), 44
 db (Application attribute), 17
 db (BaseTestCase attribute), 60
 decorators (ObjectEdit attribute), 52
 default_config (Application attribute), 17
 default_search_fields (WhooshIndexService attribute), 43
 default_view (Application attribute), 17
 default_view (class in abilian.web.views), 49
 DefaultRelatedView (class in abilian.web.frontend), 54
 delete() (ObjectDelete method), 52
 delete_cls (Module attribute), 55
 deleted_at (Attachment attribute), 34
 deleted_at (Comment attribute), 33
 deleted_at (Entity attribute), 23, 25
 deleted_at (Group attribute), 31
 deleted_at (TimestampedMixin attribute), 29
 deleted_at (User attribute), 30
 description (Action attribute), 46
 description (Attachment attribute), 34
 description (BreadcrumbItem attribute), 47
 description (Group attribute), 31
 digest() (Converter static method), 39
 dispatch_request() (View method), 48
 display_value() (ActivityEntry method), 37
 display_value() (Blob method), 32
 display_value() (Entity method), 22, 24
 display_value() (Group method), 31
 display_value() (Tag method), 32
 display_value() (User method), 30
 divider (NavItem attribute), 47

E

edit() (ObjectEdit method), 50
 edit_cls (Module attribute), 55
 edit_form_class (Module attribute), 56

email (User attribute), 30
 enabled (Action attribute), 46
 encoding_sniffer (Handler attribute), 40
 endpoint (Action attribute), 46
 endpoint (Module attribute), 56
 entities (Tag attribute), 32
 entity (Attachment attribute), 34
 Entity (class in abilian.core.entities), 22, 24
 entity (Comment attribute), 33
 entity_class (Entity attribute), 23, 25
 entity_id (Attachment attribute), 34
 entity_id (Comment attribute), 33
 entity_type (Attachment attribute), 34
 entity_type (Comment attribute), 33
 entity_type (Entity attribute), 23, 25
 entity_type (Group attribute), 31
 entity_type (User attribute), 30
 EntityCreate (class in abilian.web.frontend), 54
 EntityDelete (class in abilian.web.frontend), 54
 EntityEdit (class in abilian.web.frontend), 54
 EntityView (class in abilian.web.frontend), 54
 entries_for_actor() (ActivityService static method), 38
 environment variable
 SQLALCHEMY_DATABASE_URI, 58
 expose() (in module abilian.web.frontend), 57
 extend() (MutationList method), 27
F
 file (Blob attribute), 32
 filesize() (in module abilian.web.filters), 44
 filter() (JSONModelSearch method), 53
 filter_cols() (in module abilian.core.sqlalchemy), 28
 first_name (User attribute), 30
 FIT (in module abilian.services.image), 41
 follow() (User method), 30
 followers (User attribute), 30
 for_category() (ActionRegistry method), 45
 for_entity() (in module abilian.core.models.attachment), 35
 for_entity() (in module abilian.core.models.comment), 34
 Form (class in abilian.web.forms), 47
 Form (ObjectView attribute), 50
 form (ObjectView attribute), 50
 form_csrf_invalid() (ObjectEdit method), 50
 form_invalid() (ObjectEdit method), 51
 form_valid() (ObjectEdit method), 51
 FormPermissions (class in abilian.web.forms), 47
 fqcn() (in module abilian.core.util), 36
 friendly_fqcn() (in module abilian.core.util), 36
G
 get() (BaseObjectView method), 49
 get() (BaseTestCase method), 59
 get() (Cache method), 39
 get() (JSONView method), 48
 get_document() (WhooshIndexService method), 42
 get_extension() (in module abilian.core.extensions), 25
 get_form_buttons() (ObjectCreate method), 52
 get_form_buttons() (ObjectDelete method), 52
 get_form_buttons() (ObjectEdit method), 51
 get_form_kwargs() (ObjectCreate method), 52
 get_form_kwargs() (ObjectView method), 50
 get_grouped_actions() (Module method), 55
 get_image() (Converter method), 39
 get_item() (JSONBaseSearch method), 52
 get_item() (JSONModelSearch method), 53
 get_item() (JSONWhooshSearch method), 53
 get_kwargs() (Action.Endpoint method), 45
 get_label() (JSONModelSearch method), 53
 get_metadata() (Converter method), 39

get_object_or_404() (in module abil-
 ian.web.util), 58
 get_params() (in module abil-
 ian.core.util), 36
 get_render_args() (Action method), 46
 get_render_args() (NavGroup method),
 47
 get_results() (JSONBaseSearch method),
 53
 get_results() (JSONModelSearch method),
 53
 get_results() (JSONWhooshSearch
 method), 53
 get_setup_config() (BaseTestCase
 method), 59
 get_tmp_dir() (in module abil-
 ian.services.conversion), 41
 gettext() (in module abil.ian.i18n), 19
 Group (class in abil-
 ian.core.models.subjects), 30

H

handle_action() (ObjectEdit method), 51
 handle_commit_exception() (ObjectEdit
 method), 51
 handle_exception() (Application method),
 16
 handle_http_error() (Application
 method), 16
 handle_user_exception() (Application
 method), 16
 Handler (class in abil-
 ian.services.conversion), 40
 happened_at (ActivityEntry attribute), 37
 has_image() (Converter method), 39
 has_next (Pagination attribute), 35
 has_permission() (FormPermissions
 method), 48
 has_prev (Pagination attribute), 35
 has_role() (Principal method), 31

I

icon (Action attribute), 46
 icon (BreadcrumbItem attribute), 47
 id (ActivityEntry attribute), 37
 id (Attachment attribute), 34
 id (Blob attribute), 32
 id (Comment attribute), 33
 id (Entity attribute), 23, 25
 id (Group attribute), 31
 id (IdMixin attribute), 29
 id (Module attribute), 56
 id (Tag attribute), 32
 id (User attribute), 30
 IdMixin (class in abil-
 ian.core.models.base), 29
 if_running() (Service static method), 36
 ImageMagickHandler (class in abil-
 ian.services.conversion), 40
 impl (JSON attribute), 27
 impl (Locale attribute), 27
 impl (Timezone attribute), 28
 impl (UUID attribute), 28
 index() (WhooshIndexService method), 42
 index_objects() (WhooshIndexService
 method), 42
 index_url() (ObjectView method), 50
 Indexable (class in abil-
 ian.core.models.base), 29
 indexable_role() (in module abil-
 ian.services.indexing), 43
 Info (class in abil.ian.core.models.base), 29
 init_app() (ActionRegistry method), 45
 init_app() (ActivityService method), 38
 init_app() (Converter method), 39
 init_app() (Handler method), 40
 init_app() (Service method), 37
 init_app() (UnoconvPdfHandler method),
 40
 init_app() (WhooshIndexService
 method), 42
 init_breadcrumbs() (Application method),
 16
 init_debug_toolbar() (Application
 method), 16
 init_extensions() (Application method),
 16
 init_filters() (in module abil-
 ian.web.filters), 44
 init_indexes() (WhooshIndexService
 method), 42
 init_object() (BaseEntityView method), 54
 init_object() (BaseObjectView method), 49
 init_object() (ObjectCreate method), 52
 init_object() (ObjectDelete method), 52
 init_related_views() (Module method), 55

init_sentry() (Application method), 16
 init_work_dirs() (Converter method), 39
 insert() (MutationList method), 28
 insert() (NavGroup method), 47
 install_default_handler() (Application method), 16
 installed() (ActionRegistry method), 45
 is_admin_of() (User method), 30
 is_commentable() (in module abilian.core.models.comment), 34
 is_current() (Module method), 55
 is_following() (User method), 30
 is_member_of() (User method), 30
 is_online (User attribute), 30
 is_support_attachments() (in module abilian.core.models.attachment), 35
 is_support_tagging() (in module abilian.core.models.tag), 33
 iter_pages() (Pagination method), 35

J

jinja_loader (Application attribute), 17
 jinja_options (Application attribute), 18
 join() (User method), 30
 js_api (Application attribute), 18
 JSON (class in abilian.core.sqlalchemy), 27
 json_search_cls (Module attribute), 55
 JSONBaseSearch (class in abilian.web.views), 52
 JSONDict() (in module abilian.core.sqlalchemy), 28
 JSONList() (in module abilian.core.sqlalchemy), 28
 JSONModelSearch (class in abilian.web.views), 53
 JSONUniqueListType (class in abilian.core.sqlalchemy), 27
 JSONView (class in abilian.web.views), 48
 JSONWhooshSearch (class in abilian.web.views), 53

L

label (BreadcrumbItem attribute), 47
 label (Module attribute), 56
 label (Tag attribute), 33
 labelize() (in module abilian.web.filters), 44
 labelize() (in module abilian.web.frontend), 57
 last_active (User attribute), 30
 last_name (User attribute), 30
 lazy_gettext() (in module abilian.i18n), 19
 leave() (User method), 30
 linkify() (in module abilian.web.filters), 44
 list_json2() (Module method), 55
 list_view() (Module method), 55
 list_view_columns (Module attribute), 56
 ListJson (class in abilian.web.frontend), 55
 load_dialect_impl() (UUID method), 28
 local_dt() (in module abilian.core.util), 36
 Locale (class in abilian.core.sqlalchemy), 27
 locale (User attribute), 30
 localeselector() (in module abilian.i18n), 20
 log_activity() (ActivityService method), 38
 log_exception() (Application method), 16
 login() (BaseTestCase method), 59
 login_system() (BaseTestCase method), 60
 logout() (BaseTestCase method), 60

M

MAIL_SENDER (TestConfig attribute), 58
 make_config() (Application method), 16
 make_single_view() (in module abilian.web.frontend), 57
 make_temp_file() (in module abilian.services.conversion), 41
 managed_class (Module attribute), 56
 maybe_register_setup_wizard() (Application method), 17
 md5 (Blob attribute), 32
 members (Group attribute), 31
 memoized (class in abilian.core.util), 35
 message_success() (ObjectEdit method), 51
 meta (Attachment attribute), 34
 meta (Blob attribute), 32
 meta (Comment attribute), 33
 meta (Entity attribute), 23, 25
 metadata (Model attribute), 29
 methods (BaseObjectView attribute), 49
 methods (EntityCreate attribute), 54
 methods (EntityDelete attribute), 54

methods (EntityEdit attribute), 54
 methods (EntityView attribute), 55
 methods (JSONBaseSearch attribute), 53
 methods (JSONModelSearch attribute), 53
 methods (JSONView attribute), 48
 methods (JSONWhooshSearch attribute), 53
 methods (ListJson attribute), 55
 methods (ObjectCreate attribute), 52
 methods (ObjectDelete attribute), 52
 methods (ObjectEdit attribute), 52
 methods (ObjectView attribute), 50
 mime_sniffer (Handler attribute), 40
 minimum_input_length (JSONBaseSearch attribute), 53
 ModalActionMixin (class in abilian.web.action), 46
 Model (BaseObjectView attribute), 49
 Model (class in abilian.core.models.base), 29
 Model (JSONBaseSearch attribute), 53
 Module (class in abilian.web.frontend), 55
 module (ModuleView attribute), 57
 ModuleAction (class in abilian.web.frontend), 56
 ModuleActionDropDown (class in abilian.web.frontend), 56
 ModuleActionGroup (class in abilian.web.frontend), 57
 ModuleActionGroupItem (class in abilian.web.frontend), 57
 ModuleMeta (class in abilian.web.frontend), 57
 ModuleView (class in abilian.web.frontend), 57
 MutationDict (class in abilian.core.sqlalchemy), 27
 MutationList (class in abilian.core.sqlalchemy), 27

N

name (Action attribute), 46
 name (ActivityService attribute), 38
 name (Attachment attribute), 34
 name (Comment attribute), 33
 name (Entity attribute), 24, 25
 name (Group attribute), 31
 name (Module attribute), 56
 name (Service attribute), 37
 name (User attribute), 30
 name (WhooshIndexService attribute), 43
 NavGroup (class in abilian.web.nav), 47
 NavItem (class in abilian.web.nav), 47
 needs_db_flush (SecurityServiceState attribute), 43
 next (Pagination attribute), 35
 ngettext() (in module abilian.i18n), 20
 nl2br() (in module abilian.web.filters), 44
 noproxy() (in module abilian.core.util), 36
 ns (Tag attribute), 33

O

obj (BaseObjectView attribute), 49
 obj_to_url() (in module abilian.web.filters), 44
 object (ActivityEntry attribute), 37
 object_actions (EntityView attribute), 55
 object_id (ActivityEntry attribute), 38
 object_key (Indexable attribute), 29
 object_type (ActivityEntry attribute), 38
 object_type (Entity attribute), 24, 25
 object_type (Indexable attribute), 29
 ObjectCreate (class in abilian.web.views), 52
 ObjectDelete (class in abilian.web.views), 52
 ObjectEdit (class in abilian.web.views), 50
 ObjectView (class in abilian.web.views), 50
 options() (JSONModelSearch method), 53
 order_by() (JSONModelSearch method), 53
 ordered_query() (Module method), 55
 OwnedMixin (class in abilian.core.models.owned), 31
 owner (Attachment attribute), 34
 owner (Comment attribute), 33
 owner (Entity attribute), 24, 25
 owner (OwnedMixin attribute), 31
 owner_id (Attachment attribute), 34
 owner_id (Comment attribute), 33
 owner_id (Entity attribute), 24, 25
 owner_id (OwnedMixin attribute), 31
 owner_name (OwnedMixin attribute), 31

P

pages (Pagination attribute), 35

Pagination (class in abilian.core.util), 35
 paragraphs() (in module abilian.web.filters), 44
 password (User attribute), 30
 patch_logger (in module abilian.core.logging), 26
 path (NavItem attribute), 47
 pdb_on_error() (in module abilian.core.util), 36
 PdfToPpmHandler (class in abilian.services.conversion), 40
 PdfToTextHandler (class in abilian.services.conversion), 40
 permission (ObjectEdit attribute), 52
 permission (ObjectView attribute), 50
 photo (Group attribute), 31
 photo (User attribute), 30
 ping_connection() (in module abilian.core.sqlalchemy), 28
 pivot_format_map (CloudoooPdfHandler attribute), 39
 pk (BaseEntityView attribute), 54
 pk (BaseObjectView attribute), 49
 pop() (MutationDict method), 27
 pop() (MutationList method), 28
 popitem() (MutationDict method), 27
 post() (ObjectEdit method), 51
 pre_condition() (Action method), 46
 pre_condition() (ModuleAction method), 56
 prepare_args() (BaseEntityView method), 54
 prepare_args() (BaseObjectView method), 49
 prepare_args() (EntityCreate method), 54
 prepare_args() (JSONBaseSearch method), 53
 prepare_args() (JSONView method), 48
 prepare_args() (ObjectEdit method), 51
 prepare_args() (ObjectView method), 50
 prepare_args() (View method), 48
 prev (Pagination attribute), 35
 Principal (class in abilian.core.models.subjects), 31
 process_bind_param() (JSON method), 27
 process_bind_param() (JSONUniqueList-Type method), 27
 process_bind_param() (Locale method), 27
 process_bind_param() (Timezone method), 28
 process_bind_param() (UUID method), 28
 process_result_value() (JSON method), 27
 process_result_value() (Locale method), 27
 process_result_value() (Timezone method), 28
 process_result_value() (UUID method), 28
 produces_mime_types (Abiword-PDFHandler attribute), 38
 produces_mime_types (AbiwordTextHandler attribute), 38
 produces_mime_types (CloudoooPdfHandler attribute), 39
 produces_mime_types (Handler attribute), 40
 produces_mime_types (ImageMagickHandler attribute), 40
 produces_mime_types (PdfToPpmHandler attribute), 40
 produces_mime_types (PdfToTextHandler attribute), 40
 produces_mime_types (UnoconvPdfHandler attribute), 41
 produces_mime_types (WvwareTextHandler attribute), 41
 public (Group attribute), 31
 put() (ObjectEdit method), 51
 python_type (JSONUniqueListType attribute), 27
 python_type (Locale attribute), 27
 python_type (Timezone attribute), 28

Q

query (Model attribute), 29
 query() (Module method), 55
 query_class (Blob attribute), 31
 query_class (Entity attribute), 22, 24
 query_class (User attribute), 29

R

read_query (Module attribute), 56

redirect() (View method), 48
 redirect_to_index() (BaseEntityView method), 54
 redirect_to_index() (ObjectView method), 50
 redirect_to_view() (ObjectEdit method), 51
 redis (Application attribute), 18
 register() (ActionRegistry method), 45
 register() (in module abilian.core.models.attachment), 35
 register() (in module abilian.core.models.comment), 34
 register() (in module abilian.core.models.tag), 33
 register() (Registry method), 48
 register_actions() (Module method), 56
 register_asset() (Application method), 17
 register_class() (WhooshIndexService method), 42
 register_classes() (WhooshIndexService method), 42
 register_handler() (Converter method), 39
 register_i18n_js() (Application method), 17
 register_jinja_loaders() (Application method), 17
 register_js_api (in module abilian.core.signals), 26
 register_plugin() (in module abilian.web.attachments), 43
 register_plugin() (in module abilian.web.comments), 44
 register_plugin() (in module abilian.web.tags), 57
 register_plugins() (Application method), 17
 register_search_filter() (WhooshIndexService method), 42
 register_value_provider() (WhooshIndexService method), 42
 Registry (class in abilian.web.views), 48
 related_views (Module attribute), 56
 RelatedView (class in abilian.web.frontend), 57
 remove() (MutationList method), 28
 render() (Action method), 46
 render() (BreadcrumbItem method), 47
 render() (DefaultRelatedView method), 54
 render() (RelatedView method), 57
 render_template_i18n() (in module abilian.i18n), 20
 resize() (in module abilian.services.image), 41
 reverse() (MutationList method), 28
 roughsize() (in module abilian.web.filters), 44
 run_timeout (UnoconvPdfHandler attribute), 41
 running (Service attribute), 37
 running (ServiceState attribute), 37

S

SCALE (in module abilian.services.image), 41
 script_manager (Application attribute), 18
 search() (WhooshIndexService method), 42
 search_criteria (Module attribute), 56
 search_for_class() (WhooshIndexService method), 43
 searchable_object_types() (WhooshIndexService method), 43
 SECRET_KEY (TestConfig attribute), 58
 SecurityServiceState (class in abilian.services.security.service), 43
 send_file_from_directory() (in module abilian.web.util), 58
 SERVER_URL (CloudoooPdfHandler attribute), 39
 Service (class in abilian.services.base), 36
 service (in module abilian.services.indexing), 41
 service (in module abilian.services.security), 43
 service (ServiceState attribute), 37
 ServiceManager (class in abilian.app), 18
 ServiceNotRegistered, 36
 SERVICES (BaseTestCase attribute), 60
 ServiceState (class in abilian.services.base), 37
 set() (Cache method), 39
 set_attachment_name() (in module abilian.core.models.attachment), 35

set_locale() (in module abilian.i18n), 20
 set_password() (User method), 30
 setdefault() (MutationDict method), 27
 setUp() (BaseTestCase method), 60
 setup_abilian_commands() (in module abilian.core.commands), 21
 setup_logging() (Application method), 17
 setUpClass() (abilian.testing.BaseTestCase class method), 60
 single_view (BaseEntityView attribute), 54
 single_view (Module attribute), 56
 SITE_NAME (TestConfig attribute), 58
 size (Blob attribute), 32
 slug (Attachment attribute), 34
 slug (Comment attribute), 33
 slug (Entity attribute), 24, 25
 SLUG_SEPARATOR (Attachment attribute), 34
 SLUG_SEPARATOR (Comment attribute), 33
 SLUG_SEPARATOR (Entity attribute), 22, 25
 slugify() (in module abilian.core.util), 36
 sort() (MutationList method), 28
 SQLAlchemy (in module abilian.core.sqlalchemy), 28
 SQLALCHEMY_DATABASE_URI, 58
 SQLALCHEMY_DATABASE_URI (TestConfig attribute), 58
 SQLALCHEMY_ECHO (TestConfig attribute), 58
 SQLALCHEMY_WARNINGS_AS_ERROR (BaseTestCase attribute), 60
 start() (ActivityService method), 38
 start() (Service method), 37
 start() (WhooshIndexService method), 43
 start_services() (ServiceManager method), 18
 static_folder (Module attribute), 56
 status (Action attribute), 46
 status (NavGroup attribute), 47
 status (NavItem attribute), 47
 stop() (ActivityService method), 38
 stop() (Service method), 37
 stop_services() (ServiceManager method), 18
 SupportAttachment (class in abilian.core.models.attachment), 34
 SupportTagging (class in abilian.core.models.tag), 32
 SYSTEM (in module abilian.core.models.base), 29
T
 tableview_options (Module attribute), 56
 Tag (class in abilian.core.models.tag), 32
 TAGS_ATTR (in module abilian.core.models.tag), 33
 target (ActivityEntry attribute), 38
 target_id (ActivityEntry attribute), 38
 target_type (ActivityEntry attribute), 38
 tearDown() (BaseTestCase method), 60
 tearDownClass() (abilian.testing.BaseTestCase class method), 60
 template (BaseObjectView attribute), 49
 template (EntityCreate attribute), 54
 template (EntityEdit attribute), 54
 template (EntityView attribute), 55
 template (ObjectEdit attribute), 52
 template (ObjectView attribute), 50
 template_kwargs (BaseObjectView attribute), 49
 template_kwargs (EntityCreate attribute), 54
 template_kwargs (EntityEdit attribute), 54
 template_kwargs (EntityView attribute), 55
 template_kwargs (ObjectView attribute), 50
 template_string (Action attribute), 46
 template_string (BreadcrumbItem attribute), 47
 template_string (ModalActionMixin attribute), 46
 template_string (ModuleActionDropDown attribute), 56
 template_string (ModuleActionGroup attribute), 57
 template_string (NavGroup attribute), 47
 templated() (in module abilian.web.decorators), 44

TEST_INSTANCE_PATH (BaseTestCase attribute), 60
 TestConfig (class in abilian.testing), 58
 TESTING (TestConfig attribute), 58
 TESTING_BUILD_ASSETS (BaseTestCase attribute), 60
 timer (class in abilian.core.util), 36
 TimestampedMixin (class in abilian.core.models.base), 29
 Timezone (class in abilian.core.sqlalchemy), 28
 timezone (User attribute), 30
 timezoneselector() (in module abilian.i18n), 20
 title (Action attribute), 46
 title (BaseObjectView attribute), 50
 TMP_DIR (Handler attribute), 40
 to_dict() (BaseMixin method), 35
 to_image() (Converter method), 39
 to_json() (BaseMixin method), 35
 to_pdf() (Converter method), 39
 to_text() (Converter method), 39
 to_timestamp() (in module abilian.web.filters), 45
 TRAP_BAD_REQUEST_ERRORS (TestConfig attribute), 58
 TRAP_HTTP_EXCEPTIONS (TestConfig attribute), 59

U

unfollow() (User method), 30
 unoconv (UnoconvPdfHandler attribute), 41
 unoconv_version (UnoconvPdfHandler attribute), 41
 UnoconvPdfHandler (class in abilian.services.conversion), 40
 update() (MutationDict method), 27
 updated_at (Attachment attribute), 34
 updated_at (Comment attribute), 33
 updated_at (Entity attribute), 24, 25
 updated_at (Group attribute), 31
 updated_at (TimestampedMixin attribute), 29
 updated_at (User attribute), 30
 url (BreadcrumbItem attribute), 47
 url (Module attribute), 56
 url() (Action method), 46
 url_for() (in module abilian.web.util), 58
 url_for() (Registry method), 48
 use_cache (SecurityServiceState attribute), 43
 User (class in abilian.core.models.subjects), 29
 user_loaded (in module abilian.core.signals), 26
 utc_dt() (in module abilian.core.util), 36
 uuid (Blob attribute), 32
 UUID (class in abilian.core.sqlalchemy), 28

V

VALID_LANGUAGES_CODE (in module abilian.i18n), 20
 validate() (BaseTestCase method), 60
 validate() (ObjectEdit method), 51
 ValidationError, 24
 value (Blob attribute), 32
 verb (ActivityEntry attribute), 38
 View (class in abilian.web.views), 48
 view_cls (Module attribute), 55
 view_form_class (Module attribute), 56
 view_new_save_and_add (Module attribute), 56
 view_options (Module attribute), 56
 view_template (Module attribute), 56
 view_url() (ObjectEdit method), 51

W

WhooshIndexService (class in abilian.services.indexing.service), 41
 wrap_collection() (abilian.core.util.BasePresenter class method), 35
 WTF_CSRF_ENABLED (TestConfig attribute), 59
 WvwareTextHandler (class in abilian.services.conversion), 41